WEST Search History

DATE: Monday, October 28, 2002

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; PLUR=YES; OP=OR		
L21	L18 and (l1 or l2 or l3)	3	L21
L20	(isalan)[IN]	0	L20
L19	L18 and l10	2	L19
L18	(klug)[IN]	206	L18
L17	L16 and l10	3	L17
L16	(choo)[IN]	159	L16
L15	("choo yen")	2	L15
L14	(choo yen)[IN]	1737	L14
L13	L10 and ("alpha helix")	82	L13
L12	L10 and ("recognition code")	8	L12
L11	L10 and (quadruplet or triplet)	147	L11
L10	L9 and dna	602	L10
L9	L8 and ("nucleic acid" or "nucleic acids")	603	L9
L8	(l5 or l6 or l7) and (bind or binding)	617	L8
L7	L4 and l3	212	L7
L6	L4 and l2	330	L6
L5	L4 and l1	304	L5
L4	"zinc finger"	1107	L4
L3	(((530/350)!.CCLS.))	6865	L3
L2	(((435/6)!.CCLS.))	9733	L2
L1	((536/23.1)!.CCLS.)	6984	L1

END OF SEARCH HISTORY

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NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2	Apr 08	"Ask CAS" for self-help around the clock
NEWS 3	Apr 09	BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 4	Apr 09	ZDB will be removed from STN
NEWS 5	Apr 19	US Patent Applications available in IFICDB, IFIPAT, and IFIUDB
NEWS 6	Apr 22	Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS
NEWS 7	Apr 22	BIOSIS Gene Names now available in TOXCENTER
NEWS 8	Apr 22	Federal Research in Progress (FEDRIP) now available
NEWS 9	Jun 03	New e-mail delivery for search results now available
NEWS 10	Jun 10	MEDLINE Reload
NEWS 11	Jun 10	PCTFULL has been reloaded
NEWS 12	Jul 02	FOREGE no longer contains STANDARDS file segment
NEWS 13	Jul 22	USAN to be reloaded July 28, 2002; saved answer sets no longer valid
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NEWS 24	Sep 16	Experimental properties added to the REGISTRY file
NEWS 25	Sep 16	Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 27	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28	Oct 21	EVENTLINE has been reloaded
NEWS 29	Oct 24	BEILSTEIN adds new search fields
NEWS 30	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 31	Oct 25	MEDLINE SDI run of October 8, 2002 on STN

NEWS EXPRESS	October 14 CURRENT WINDOWS VERSION IS V6.01, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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FILE 'HOME' ENTERED AT 12:19:42 ON 28 OCT 2002

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'STNGUIDE' ENTERED AT 12:19:50 ON 28 OCT 2002
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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	0.27

FILE 'HOME' ENTERED AT 12:20:13 ON 28 OCT 2002

=> file medline, uspatful, dgene, embase, biosis, wpids, hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.48

FILE 'MEDLINE' ENTERED AT 12:21:00 ON 28 OCT 2002

FILE 'USPATFULL' ENTERED AT 12:21:00 ON 28 OCT 2002
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=> s zinc finger
L1 38906 ZINC FINGER

=> s nucleic acid binding protein
3 FILES SEARCHED...
L2 2277 NUCLEIC ACID BINDING PROTEIN

=> s l2 and method

L3 790 L2 AND METHOD

=> s l3 and production
L4 329 L3 AND PRODUCTION

=> s l4 and l1
L5 84 L4 AND L1

=> d l5 ti abs ibib 1-10

L5 ANSWER 1 OF 84 USPATFULL
TI Isolation and use of fetal urogenital sinus expressed sequences
AB The invention comprises methods for identifying biomarkers useful for prognostic or diagnostic assays of human prostate disease, and for identifying those fetal genes which are differentially expressed between prostate cancers versus normal or benign prostate.

ACCESSION NUMBER: 2002:279688 USPATFULL
TITLE: Isolation and use of fetal urogenital sinus expressed sequences
INVENTOR(S): Sikes, Robert A., Gordonsville, VA, UNITED STATES
Chung, Leland W.K., Lovingston, VA, UNITED STATES
Kim, Jin Hee, Santa Monica, CA, UNITED STATES
Fasciana, Claudia, Rotterdam, NETHERLANDS
Trapman, Jan, Mijnsheerenland, NETHERLANDS

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002155119	A1	20021024
APPLICATION INFO.:	US 2001-933797	A1	20010822 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-482933, filed on 14 Jan 2000, ABANDONED Continuation of Ser. No. WO 1999-US10746, filed on 14 May 1999, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85383P	19980514 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PENNIE & EDMONDS LLP, 1667 K STREET NW, SUITE 1000, WASHINGTON, DC, 20006
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 472 Drawing Page(s)
LINE COUNT: 13107

L5 ANSWER 2 OF 84 USPATFULL
TI Compositions and methods for ovarian cancer therapy and diagnosis
AB Compositions and methods for the therapy and diagnosis of cancer, such as ovarian cancer, are disclosed. Compositions may comprise one or more ovarian carcinoma proteins, immunogenic portions thereof, polynucleotides that encode such portions or antibodies or immune system cells specific for such proteins. Such compositions may be used, for example, for the prevention and treatment of diseases such as ovarian cancer. Methods are further provided for identifying tumor antigens that are secreted from ovarian carcinomas and/or other tumors. Polypeptides and polynucleotides as provided herein may further be used for the diagnosis and monitoring of ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:275909 USPATFULL
TITLE: Compositions and methods for ovarian cancer therapy and

diagnosis

INVENTOR(S): Benson, Darin R., Seattle, WA, United States
Lodes, Michael J., Seattle, WA, United States
Mitcham, Jennifer L., Redmond, WA, United States
King, Gordon E., Seattle, WA, United States

PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6468758	B1	20021022
APPLICATION INFO.:	US 1999-397787		19990916 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-246429, filed on 8 Feb 1999 Continuation-in-part of Ser. No. US 1998-159320, filed on 23 Sep 1998, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Brusca, John S.
ASSISTANT EXAMINER: Moran, Margorie A.
LEGAL REPRESENTATIVE: Seed Intellectual Property Law Group PLLC
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Figure(s); 32 Drawing Page(s)
LINE COUNT: 5338
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 84 USPATFULL
TI Nucleic acids, proteins and antibodies
AB This invention relates to newly identified prostate or prostate cancer related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "prostate cancer antigens," and to the complete gene sequences associated therewith and to the expression products thereof, and to antibodies that immunospecifically bind these polypeptides, as well as the use of such prostate cancer polynucleotides, antigens, and antibodies for detection, prevention, prognosis, and treatment of disorders of the reproductive system, particularly disorders of the prostate, including, but not limited to, the presence of prostate cancer and prostate cancer metastases. More specifically, isolated prostate cancer nucleic acid molecules are provided encoding novel prostate cancer polypeptides. Novel prostate cancer polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human prostate cancer polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the prostate, including prostate cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the **production** and/or function of the polypeptides of the invention.

ACCESSION NUMBER: 2002:273550 USPATFULL
TITLE: Nucleic acids, proteins and antibodies
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002151681	A1	20021017
APPLICATION INFO.:	US 2001-925300	A1	20010810 (9)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 2000-US5988, filed on 8 Mar 2000, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-124270P	19990312 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS:	23
EXEMPLARY CLAIM:	1
LINE COUNT:	29771

L5 ANSWER 4 OF 84 USPATFULL

TI PEI: DNA vector formulations for in vitro and in vivo gene delivery

AB The present invention relates generally to the fields of nucleic acid transfection. More particularly, it concerns novel polycation:nucleic acid compositions, methods of preparation of such compositions and methods of transfecting cells with such compositions.

ACCESSION NUMBER:	2002:272939 USPATFULL
TITLE:	PEI: DNA vector formulations for in vitro and in vivo gene delivery
INVENTOR(S):	Cristiano, Richard J., Pearland, TX, UNITED STATES Yamashita, Motoyuki, Kochi City, JAPAN
PATENT ASSIGNEE(S):	Board of Regents, The University of Texas System (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002151060	A1	20021017	
APPLICATION INFO.:	US 2001-962922	A1	20010925	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-235237P	20000925 (60)
	US 2000-235635P	20000926 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	FULBRIGHT & JAWORSKI L.L.P., A REGISTERED LIMITED LIABILITY PARTNERSHIP, SUITE 2400, 600 CONGRESS AVENUE, AUSTIN, TX, 78701
NUMBER OF CLAIMS:	141
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	31 Drawing Page(s)
LINE COUNT:	7002

L5 ANSWER 5 OF 84 USPATFULL

TI End selection in directed evolution

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of end-selection-based methods is the ability to recover full-length polynucleotides from a library of progeny molecules generated by mutagenesis methods. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For

example, vaccine vectors, can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

ACCESSION NUMBER: 2002:265886 USPATFULL
TITLE: End selection in directed evolution
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES
Frey, Gerhard Johann, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002146762	A1	20021010
APPLICATION INFO.:	US 2001-885551	A1	20010619 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-522289, filed on 9 Mar 2000, PATENTED Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, PENDING Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, PENDING Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999, ABANDONED Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999, PATENTED Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, PATENTED Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, PATENTED Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, PATENTED Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, PATENTED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189

NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 8987

L5 ANSWER 6 OF 84 USPATFULL
TI Exonuclease-mediated gene assembly in directed evolution
AB A directed evolution process comprising novel methods for generating improved progeny molecules having desirable properties, including, for example, a **method** for rapid and facilitated **production** from a parental polynucleotide template, of a set of mutagenized progeny polynucleotides wherein at least one codon encoding each of the 20 naturally encoded amino acids is represented at each original codon position. This **method**, termed site-saturation mutagenesis, or simply saturation mutagenesis, is preferably based on the use of the degenerate N,N,G/T sequence. Also, a **method** of producing from a parental polypeptide template, a set of mutagenized progeny polypeptides wherein each of the 20 naturally encoded amino acids is represented at each original amino acid position. Also, other mutagenization processes that can be used in combination with, or in lieu of, saturation mutagenesis, including, for example: (a) assembly and/or reassembly of polynucloetide building blocks (including sections

of genes &/or of gene families) mediated by a source of exonuclease activity such as exonuclease III; and (b) introduction of two or more related polynucleotides into a suitable host cell such that a hybrid polynucleotide is generated by recombination and reductive reassortment. Also molecular property screening methods, including a preferred **method**, termed end selection, comprised of using an enzyme, such as a topoisomerase, a restriction endonuclease, &/or a nicking enzyme (such as N. BstNB I), to detect a specific terminal sequence in a working polynucleotide, to produce a ligatable end thereat, and to ligate and clone the working polynucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:258824 USPATFULL
TITLE: Exonuclease-mediated gene assembly in directed evolution
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES
PATENT ASSIGNEE(S): Diversa Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002142394	A1	20021003
APPLICATION INFO.:	US 2002-87426	A1	20020301 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-276860, filed on 26 Mar 1999, GRANTED, Pat. No. US 6352842
Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, GRANTED, Pat. No. US 6238884
Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, GRANTED, Pat. No. US 6171820
Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, GRANTED, Pat. No. US 6335179
Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, GRANTED, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, GRANTED, Pat. No. US 5965408

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022
NUMBER OF CLAIMS: 1
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 4637
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 7 OF 84 USPATFULL
TI Detection of nucleic acids by multiple sequential invasive cleavages 02
AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to methods for forming a nucleic acid cleavage structure on a target sequence and cleaving the nucleic acid cleavage structure in a site-specific manner. The structure-specific nuclease activity of a variety of enzymes is used to cleave the target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof. The present invention further relates to methods and devices for the separation of nucleic acid molecules based on charge. The present invention also provides methods for the detection of non-target cleavage products via the formation of a complete and activated protein

binding region. The invention further provides sensitive and specific methods for the detection of human cytomegalovirus nucleic acid in a sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:254176 USPATFULL
TITLE: Detection of nucleic acids by multiple sequential invasive cleavages 02
INVENTOR(S): Hall, Jeff G., Madison, WI, United States
Lyamichev, Victor I., Madison, WI, United States
Mast, Andrea L., Madison, WI, United States
Brow, Mary Ann D., Madison, WI, United States
PATENT ASSIGNEE(S): Third Wave Technologies, Inc, Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6458535	B1	20021001
APPLICATION INFO.:	US 1999-350597		19990709 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1997-823516, filed on 24 Mar 1997, now patented, Pat. No. US 5994069
Continuation-in-part of Ser. No. US 1996-759038, filed on 2 Dec 1996, now patented, Pat. No. US 6090543
Continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996, now patented, Pat. No. US 5085557
Continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996, now patented, Pat. No. US 6001567
Continuation-in-part of Ser. No. US 1996-599491, filed on 24 Jan 1996, now patented, Pat. No. US 5846717, issued on 8 Dec 1998

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Souaya, Jehanne
LEGAL REPRESENTATIVE: Medlen & Carroll, LLP
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 170 Drawing Figure(s); 128 Drawing Page(s)
LINE COUNT: 13831
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 8 OF 84 USPATFULL
TI Compositions and methods for the therapy and diagnosis of ovarian cancer
AB Compositions and methods for the therapy and diagnosis of cancer, particularly ovarian cancer, are disclosed. Illustrative compositions comprise one or more ovarian tumor polypeptides, immunogenic portions thereof, polynucleotides that encode such polypeptides, antigen presenting cell that expresses such polypeptides, and T cells that are specific for cells expressing such polypeptides. The disclosed compositions are useful, for example, in the diagnosis, prevention and/or treatment of diseases, particularly ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:243051 USPATFULL
TITLE: Compositions and methods for the therapy and diagnosis of ovarian cancer
INVENTOR(S): Algate, Paul A., Issaquah, WA, UNITED STATES
Jones, Robert, Seattle, WA, UNITED STATES
Harlocker, Susan L., Seattle, WA, UNITED STATES
PATENT ASSIGNEE(S): Corixa Corporation, Seattle, WA, UNITED STATES, 98104 (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002132237	A1	20020919	
APPLICATION INFO.:	US 2001-867701	A1	20010529	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-207484P	20000526 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092
NUMBER OF CLAIMS: 11
EXEMPLARY CLAIM: 1
LINE COUNT: 25718
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 9 OF 84 USPATFULL
TI Methods using genetic package display for selecting internalizing ligands for gene delivery
AB A genetic package display system is presented for selecting internalizing ligands for gene delivery. The genetic package carries a reporter, selectable marker, or a specifically detectable nucleic acid sequence and presents a ligand on its surface. More specifically, a library of potential ligands may be screened for the ability to successfully transduce target cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:238816 USPATFULL
TITLE: Methods using genetic package display for selecting internalizing ligands for gene delivery
INVENTOR(S): Larocca, David, Encinitas, CA, United States
Baird, Andrew, San Diego, CA, United States
Kassner, Paul, Hayward, CA, United States
PATENT ASSIGNEE(S): Selective Genetics, Inc., San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6451527	B1	20020917	
APPLICATION INFO.:	US 1999-258689		19990226	(9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-193445, filed on 17 Nov 1998 Continuation-in-part of Ser. No. US 1998-195379, filed on 17 Nov 1998 Continuation-in-part of Ser. No. US 1998-141631, filed on 28 Aug 1998, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-57067P	19970829 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Ponnaluri, Padmashri
LEGAL REPRESENTATIVE: Seed Intellectual Property Law Group PLLC
NUMBER OF CLAIMS: 10
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 13 Drawing Page(s)
LINE COUNT: 2048
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 10 OF 84 USPATFULL
TI Nod2 nucleic acids and proteins

AB The present invention relates to intracellular signalling molecules, in particular the Nod2 protein and nucleic acids encoding the Nod2 protein. The present invention provides isolated nucleotide sequence encoding Nod2, isolated Nod2 peptides, antibodies that specifically bind Nod2, methods for the detection of Nod2, and methods for screening compounds for the ability to alter Nod2 associated signal transduction.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:235484 USPATFULL			
TITLE:	Nod2 nucleic acids and proteins			
INVENTOR(S):	Nunez, Gabriel, Ann Arbor, MI, UNITED STATES Inohara, Naohiro, Ann Arbor, MI, UNITED STATES Ogura, Yasunori, Ann Arbor, MI, UNITED STATES			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002127673	A1	20020912	
APPLICATION INFO.:	US 2001-14269	A1	20011026	(10)
	NUMBER	DATE		
PRIORITY INFORMATION:	US 2000-244289P	20001030	(60)	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	APPLICATION			
LEGAL REPRESENTATIVE:	David A. Casimir, MEDLEN & CARROLL, LLP, Suite 350, 101 Howard Street, San Francisco, CA, 94105			
NUMBER OF CLAIMS:	26			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	21 Drawing Page(s)			
LINE COUNT:	5519			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=>

L5 ANSWER 11 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:224459 USPATFULL
TITLE:	Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S):	Stemmer, Willem P. C., Los Gatos, CA, United States Crameri, Andreas, Mountain View, CA, United States
PATENT ASSIGNEE(S):	Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6444468	B1	20020903
APPLICATION INFO.:	US 2000-724958		20001128 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1998-133508, filed on 12 Aug 1998, now patented, Pat. No. US 6287861 Continuation of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Whisenant, Ethan C.		
LEGAL REPRESENTATIVE:	Kruse, Norman, Liebeschuetz, Joe		
NUMBER OF CLAIMS:	62		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 15 Drawing Page(s)		
LINE COUNT:	4266		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 12 OF 84 USPATFULL
TI End selection in directed evolution
AB A directed evolution process comprising novel methods for generating improved progeny molecules having desirable properties, including, for example, a **method** for rapid and facilitated **production** from a parental polynucleotide template, of a set of mutagenized progeny polynucleotides wherein at least one codon encoding each of the 20 naturally encoded amino acids is represented at each original codon position. This **method**, termed site-saturation mutagenesis, or simply saturation mutagenesis, is preferably based on the use of the degenerate N,N,G/T sequence. Also, a **method** of producing from a parental polypeptide template, a set of mutagenized progeny polypeptides wherein each of the 20 naturally encoded amino acids is represented at each original amino acid position. Also, other mutagenization processes that can be used in combination with, or in lieu of, saturation mutagenesis, including, for example: (a) assembly and/or reassembly of polynucloetide building blocks, which building blocks can be sections of genes &/or of gene families; and (b) introduction of two or more related polynucleotides into a suitable host cell such that a hybrid polynucleotide is generated by recombination and

reductive reassortment. Also, vector and expression vehicles including such polynucleotides and correspondingly expressed polypeptides. Also molecular property screening methods, including a preferred **method**, termed end selection, comprised of using an enzyme, such as a topoisomerase, a restriction endonuclease, &/or a nicking enzyme (such as N. BstNB I), to detect a specific terminal sequence in a working polynucleotide, to produce a ligatable end thereat, and to ligate and clone the working polynucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:221318 USPATFULL
TITLE:	End selection in directed evolution
INVENTOR(S):	Short, Jay M., Rancho Santa Fe, CA, UNITED STATES Frey, Gerhard Johann, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002119457	A1	20020829	
APPLICATION INFO.:	US 2001-867262	A1	20010529	(9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-267118, filed on 9 Mar 1999, PATENTED Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, PATENTED Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998, PATENTED Continuation-in-part of Ser. No. US 1996-760489, filed on 5 Dec 1996, PATENTED			

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	GARY CARY WARE & FRIENDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1600, SAN DIEGO, CA, 92121-2189
NUMBER OF CLAIMS:	12
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	5 Drawing Page(s)
LINE COUNT:	4507

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 13 OF 84 USPATFULL

TI **Method** of DNA shuffling with polynucleotides produced by blocking or interrupting a synthesis or amplification process

AB Disclosed is a process of performing Sexual PCR which includes generating random polynucleotides by interrupting or blocking synthesis or amplification process to slow or halt synthesis or amplification of at least one polynucleotides, optionally amplifying the polynucleotides, and reannealing the polynucleotides to produce random mutant polynucleotides. Also provided are vector and expression vehicles including such mutant polynucleotides, polypeptides expressed by the mutant polynucleotides and a **method** for producing random polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:217027 USPATFULL
TITLE:	**Method** of DNA shuffling with polynucleotides produced by blocking or interrupting a synthesis or amplification process
INVENTOR(S):	Short, Jay M., Encinitas, CA, United States
PATENT ASSIGNEE(S):	Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION:	US 6440668	B1	20020827
APPLICATION INFO.:	US 1999-376727		19990817 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965408		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Zitomer, Stephanie		
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.		
NUMBER OF CLAIMS:	12		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	2614		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 14 OF 84 USPATFULL

TI Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex

AB A **method** for identifying nucleic acid ligands to target molecules using the SELEX procedure. Nucleic acid candidate sequences contain photoreactive groups. After exposure of the nucleic acid sequences to the target molecule, nucleic acid-target molecule complexes are formed between nucleic acids having increased affinity to the target molecule and the target molecule. The complexes are irradiated such that photocrosslinks form between the photoreactive groups of the bound nucleic acids and the target molecule. The photocrosslinked complexes are separated from unbound nucleic acids, and the nucleic acids amplified to yield a ligand-enriched mixture of nucleic acids.

Described herein are methods for improved partitioning between high and low affinity nucleic acid ligands identified through the SELEX **method**, termed solution SELEX. The solution SELEX **method** achieves partitioning between high and low affinity nucleic acid-target complexes through a number of methods, including (1) primer extension inhibition which results in differentiable cDNA products. Primer extension inhibition is achieved with the use of nucleic acid polymerases, including DNA or RNA polymerases, reverse transcriptase, and Qβ-replicase; (2) exonuclease hydrolysis inhibition which results in only the highest affinity ligands amplifying during PCR. This is achieved with the use of any 3'→5' double-stranded exonuclease; (3) linear to circle formation to generate molecules amplifiable during PCR; or (4) PCR amplification of single-stranded nucleic acids. A central theme of the **method** of the present invention is that the nucleic acid candidate mixture is screened in solution and results in preferential amplification of the highest affinity RNA ligand or catalytic RNA.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:198552 USPATFULL
TITLE:	Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex
INVENTOR(S):	Gold, Larry, Boulder, CO, UNITED STATES Willis, Michael, San Diego, CA, UNITED STATES Koch, Tad, Boulder, CO, UNITED STATES Ringquist, Steven, Oceanside, CA, UNITED STATES Jensen, Kirk, New York, NY, UNITED STATES Atkinson, Brent, Winterthur, SWITZERLAND
PATENT ASSIGNEE(S):	SomaLogic, Inc. (U.S. corporation)

NUMBER	KIND	DATE

PATENT INFORMATION: US 2002106652 A1 20020808
APPLICATION INFO.: US 2001-882246 A1 20010614 (9)
RELATED APPLN. INFO.: Division of Ser. No. US 1999-459553, filed on 13 Dec 1999, PATENTED Division of Ser. No. US 1998-93293, filed on 8 Jun 1998, PATENTED Continuation of Ser. No. US 1996-612895, filed on 8 Mar 1996, PATENTED A 371 of International Ser. No. WO 1994-US10562, filed on 16 Sep 1994, UNKNOWN Continuation-in-part of Ser. No. US 1993-143564, filed on 25 Oct 1993, ABANDONED Continuation-in-part of Ser. No. US 1993-123935, filed on 17 Sep 1993, ABANDONED Continuation-in-part of Ser. No. US 1991-714131, filed on 10 Jun 1991, PATENTED Continuation-in-part of Ser. No. US 1990-536428, filed on 11 Jun 1990, ABANDONED Continuation-in-part of Ser. No. US 1992-931473, filed on 17 Aug 1992, PATENTED Division of Ser. No. US 1991-714131, filed on 10 Jun 1991, PATENTED
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Swanson & Bratschun, L.L.C., Suite 330, 1745 Shea Center Drive, Highlands Ranch, CO, 80129
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 35 Drawing Page(s)
LINE COUNT: 2574
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 15 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:174999 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P.C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6420175	B1	20020716
APPLICATION INFO.:	US 1999-231253		19990115 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-100856, filed on 18 Jun 1998, now patented, Pat. No. US 6132970 Continuation of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan C.
LEGAL REPRESENTATIVE: Kruse, Norman, Liebeschuetz, Joe

NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 3737
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 16 OF 84 USPATFULL
TI Gene markers useful for detecting skin damage in response to ultraviolet radiation
AB The cellular response to ultraviolet radiation exposure has been characterized on the molecular level through the use of high density gene array technology. Nucleic acid molecules and protein molecules, the expression of which are repressed or induced in response to ultraviolet radiation exposure, are identified according to a temporal pattern of altered expression post ultraviolet radiation exposure. Methods are disclosed that utilized these ultraviolet radiation-regulated molecules as markers for ultraviolet radiation exposure. Other screening methods of the invention are designed for the identification of compounds that modulate the response of a cell to ultraviolet radiation exposure. The invention also provides compositions useful for drug screening or pharmaceutical purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:171875 USPATFULL		
TITLE:	Gene markers useful for detecting skin damage in response to ultraviolet radiation		
INVENTOR(S):	Blumenberg, Miroslav, New York, NY, UNITED STATES		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002090624	A1	20020711	
APPLICATION INFO.:	US 2001-947870	A1	20010906	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-231454P	20000908	(60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HALE AND DORR, LLP, 60 STATE STREET, BOSTON, MA, 02109
NUMBER OF CLAIMS:	97
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	6 Drawing Page(s)
LINE COUNT:	10110

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 17 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:160573 USPATFULL
TITLE:	Methods for generating polynucleotides having desired characteristics by iterative selection and recombination

INVENTOR(S):	Stemmer, Willem P. C., Los Gatos, CA, United States Cramieri, Andreas M., Mountain View, CA, United States
PATENT ASSIGNEE(S):	Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6413774	B1	20020702
APPLICATION INFO.:	US 1999-240734		19990129 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996, now patented, Pat. No. US 6117679 Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995 Continuation-in-part of Ser. No. WO 1995-US2126, filed on 17 Feb 1995, now patented, Pat. No. WO 5811238 Continuation of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Whisenant, Ethan
LEGAL REPRESENTATIVE:	Kruse, Norman J., Quine, Jonathan Alan, Law office of Jonathan Alan Quine
NUMBER OF CLAIMS:	36
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	35 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT:	6312

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 18 OF 84 USPATFULL

TI Compositions and methods for ovarian cancer therapy and diagnosis

AB Compositions and methods for the therapy and diagnosis of cancer, such as ovarian cancer, are disclosed. Compositions may comprise one or more ovarian carcinoma proteins, immunogenic portions thereof, polynucleotides that encode such portions or antibodies or immune system cells specific for such proteins. Such compositions may be used, for example, for the prevention and treatment of diseases such as ovarian cancer. Methods are further provided for identifying tumor antigens that are secreted from ovarian carcinomas and/or other tumors. Polypeptides and polynucleotides as provided herein may further be used for the diagnosis and monitoring of ovarian cancer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:148574 USPATFULL
TITLE:	Compositions and methods for ovarian cancer therapy and diagnosis
INVENTOR(S):	Benson, Darin R., Seattle, WA, UNITED STATES Lodes, Michael J., Seattle, WA, UNITED STATES Mitcham, Jennifer L., Redmond, WA, UNITED STATES King, Gordon E., Shoreline, WA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002076715	A1	20020620
APPLICATION INFO.:	US 2001-876889	A1	20010606 (9)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-397787, filed on 16 Sep 1999, PENDING Continuation-in-part of Ser. No. US 1999-246429, filed on 8 Feb 1999, ABANDONED Continuation-in-part of Ser. No. US 1998-159320, filed on 23 Sep 1998, ABANDONED
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 33 Drawing Page(s)
LINE COUNT: 7207
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 19 OF 84 USPATFULL
TI 98P7C3: homeodomain protein highly expressed in various cancers
AB A novel gene (designated 98P7C3) and its encoded protein are described. While 98P7C3 exhibits tissue-restricted expression in normal adult tissue, it is aberrantly expressed in multiple cancers including prostate, bladder, kidney, lung, breast, uterine, cervical, stomach, rectal and colon cancers. Consequently, 98P7C3 provides a diagnostic and/or therapeutic target for cancers, and the 98P7C3 gene or fragment thereof, or its encoded protein or a fragment thereof used to elicit an immune response.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:133493 USPATFULL
TITLE: 98P7C3: homeodomain protein highly expressed in various cancers
INVENTOR(S): Challita-Eid, Pia M., Encino, CA, UNITED STATES
Hubert, Rene S., Los Angeles, CA, UNITED STATES
Faris, Mary, Los Angeles, CA, UNITED STATES
Afar, Daniel E.H., Brisbane, CA, UNITED STATES
Levin, Elana, Los Angeles, CA, UNITED STATES
Mitchell, Steve Chappell, Santa Monica, CA, UNITED STATES
Jakobovits, Aya, Beverly Hills, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002068345	A1	20020606	
APPLICATION INFO.:	US 2001-866359	A1	20010524	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-207138P	20000524	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: GATES & COOPER LLP, HOWARD HUGHES CENTER, 6701 CENTER DRIVE WEST, SUITE 1050, LOS ANGELES, CA, 90045
NUMBER OF CLAIMS: 55
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 20 Drawing Page(s)
LINE COUNT: 6137
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 20 OF 84 USPATFULL
TI Methods using genetic package display for detecting and identifying protein-protein interactions that facilitate internalization and transgene expression and cells or tissues competent for the same and methods for evolving gene delivery vectors
AB A genetic package display system and methodology for probing protein-protein interactions that lead to cell transduction, selecting and/or identifying internalizing ligands, target cells and tissues which internalize known or putative ligands, and cell transduction facilitating peptides is provided. A ligand displaying genetic package that carries a selectable marker (e.g., reporter, selection, etc.) and presents a ligand on its surface is utilized to identify internalizing ligands, tranduction facilitating peptides, and/or a variety of cells and tissue types for the ability to be successfully transduced by the

ligand displaying genetic package. Also provided are methods for evolving a ligand displaying package to facilitate gene delivery or delivery of any desired agent (e.g., pharmaceutical, polypeptide, peptide, etc.) into a cell and/or targeting cellular compartments such as the nucleus, endosome, chloroplast, mitochondria, etc.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:133421 USPATFULL

TITLE: Methods using genetic package display for detecting and identifying protein-protein interactions that facilitate internalization and transgene expression and cells or tissues competent for the same and methods for evolving gene delivery vectors

INVENTOR(S): Larocca, David, Encinitas, CA, UNITED STATES
Kassner, Paul, San Mateo, CA, UNITED STATES
Baird, Andrew, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002068272	A1	20020606	
APPLICATION INFO.:	US 2001-866073	A1	20010524	(9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2000-US9925361, filed on 25 May 2000, UNKNOWN

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVE, SUITE 6300, SEATTLE, WA, 98104-7092

NUMBER OF CLAIMS: 41

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 18 Drawing Page(s)

LINE COUNT: 2965

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 21 OF 84 USPATFULL

TI Screening system for **zinc finger** polypeptides for a desired binding ability

AB This invention relates to a **method** for producing a **zinc finger nucleic acid binding protein** comprising preparing a **zinc finger** protein according design rules, varying the protein at one or more positions, and selecting variants which bind to a target nucleic acid sequence by polysome display.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:126312 USPATFULL

TITLE: Screening system for **zinc finger** polypeptides for a desired binding ability

INVENTOR(S): Choo, Yen, Cambridge, UNITED KINGDOM
Moore, Michael, Amersham Bucks, UNITED KINGDOM

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002064824	A1	20020530	
APPLICATION INFO.:	US 2001-851271	A1	20010508	(9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 1999-GB3730, filed on 9 Nov 1999, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1998-24544	19981109

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: FROMMER LAWRENCE & HAUG LLP, 745 Fifth Avenue, New York, NY, 10151
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
LINE COUNT: 1356
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 22 OF 84 USPATFULL
TI 52 human secreted proteins
AB The present invention relates to novel human secreted proteins and isolated nucleic acids containing the coding regions of the genes encoding such proteins. Also provided are vectors, host cells, antibodies, and recombinant methods for producing human secreted proteins. The invention further relates to diagnostic and therapeutic methods useful for diagnosing and treating diseases, disorders, and/or conditions related to these novel human secreted proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:126306 USPATFULL
TITLE: 52 human secreted proteins
INVENTOR(S): Ni, Jian, Germantown, MD, UNITED STATES
Baker, Kevin P., Darnestown, MD, UNITED STATES
Birse, Charles E., North Potomac, MD, UNITED STATES
Fiscella, Michele, Bethesda, MD, UNITED STATES
Komatsoulis, George A., Silver Spring, MD, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Soppet, Daniel R., Centreville, VA, UNITED STATES
Young, Paul E., Gaithersburg, MD, UNITED STATES
Ebner, Reinhard, Gaithersburg, MD, UNITED STATES
Duan, D. Roxanne, Bethesda, MD, UNITED STATES
Olsen, Henrik S., Gaithersburg, MD, UNITED STATES
LaFleur, David W., Washington, DC, UNITED STATES
Moore, Paul A., Germantown, MD, UNITED STATES
Shi, Yanggu, Gaithersburg, MD, UNITED STATES
Wei, Ping, Brookeville, MD, UNITED STATES
Florence, Kimberly A., Rockville, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002064818	A1	20020530	
APPLICATION INFO.:	US 2001-789561	A1	20010222	(9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 2000-US24008, filed on 31 Aug 2000, UNKNOWN			

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1999-152317P	19990903	(60)
	US 1999-152315P	19990903	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
LINE COUNT: 24623
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 23 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and

its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:122489 USPATFULL
TITLE:	Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S):	Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S):	Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6395547	B1	20020528
APPLICATION INFO.:	US 2000-619550		20000719 (9)

RELATED APPLN. INFO.:	Division of Ser. No. US 1999-239395, filed on 28 Jan 1999 Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996, now patented, Pat. No. US 6117679 Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995, now patented, Pat. No. US 5811238 Continuation-in-part of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Whisenant, Ethan C.
LEGAL REPRESENTATIVE:	Kruse, Norman J., Quine, Jonathan Alan, Quine Intellectual Property Law Group, P.C.
NUMBER OF CLAIMS:	42
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	72 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT:	6098

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 24 OF 84 USPATFULL

TI Nucleic acids, proteins and antibodies

AB The present invention relates to novel colorectal cancer related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "colorectal cancer antigens," and antibodies that immunospecifically bind these polypeptides, and the use of such colorectal cancer polynucleotides, antigens, and antibodies for detecting, treating, preventing and/or prognosing disorders of the colon and/or rectum, including, but not limited to, the presence of colorectal cancer and colorectal cancer metastases. More specifically, isolated colorectal cancer nucleic acid molecules are provided encoding novel colorectal cancer polypeptides. Novel colorectal cancer polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human colorectal cancer polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the colon and/or rectum, including colorectal cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention.

The invention further relates to methods and/or compositions for inhibiting or promoting the **production** and/or function of the polypeptides of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:106416 USPATFULL
TITLE: Nucleic acids, proteins and antibodies
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002055627	A1	20020509	
APPLICATION INFO.:	US 2001-925299	A1	20010810	(9)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 2000-US5883, filed on 8 Mar 2000, UNKNOWN

	NUMBER	DATE	
PRIORITY INFORMATION:	US 1999-124270P	19990312	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
LINE COUNT: 20658
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 25 OF 84 USPATFULL
TI GTP-binding protein useful in treatment and detection of cancer
AB A novel gene (designated 103P3E8) and its encoded protein are described. While 103P3E8 exhibits tissue specific expression in normal adult tissue, it is aberrantly expressed in multiple cancers including prostate, bladder, kidney, colon, lung, breast, rectal and stomach cancers. Consequently, 103P3E8 provides a diagnostic and/or therapeutic target for cancers, and the 103P3E8 gene or fragment thereof, or its encoded protein or a fragment thereof can be used to elicit an immune response.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:106269 USPATFULL
TITLE: GTP-binding protein useful in treatment and detection of cancer
INVENTOR(S): Faris, Mary, Los Angeles, CA, UNITED STATES
Challita-Eid, Pia M., Encino, CA, UNITED STATES
Raitano, Arthur B., Los Angeles, CA, UNITED STATES
Mitchell, Steve Chappell, Santa Monica, CA, UNITED STATES
Afar, Daniel E.H., Brisbane, CA, UNITED STATES
Jakobovits, Aya, Beverly Hills, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002055478	A1	20020509	
APPLICATION INFO.:	US 2001-834765	A1	20010412	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-196647P	20000412	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GATES & COOPER LLP, HOWARD HUGHES CENTER, 6701 CENTER DRIVE WEST, SUITE 1050, LOS ANGELES, CA, 90045
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Page(s)
LINE COUNT: 5003
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 26 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:81277 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6372497	B1	20020416
APPLICATION INFO.:	US 2000-590774		20000608 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996, now patented, Pat. No. US 6117679 Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995, now patented, Pat. No. US 5811238 Continuation-in-part of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Kruse, Norman J., Quine, Jonathan Alan, The Law Offices of Jonathan Alan Quine
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 72 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT: 6311
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 27 OF 84 USPATFULL
TI Methods of evolving a polynucleotides by mutagenesis and recombination
AB A **method** of mutating a polynucleotide such that it has a desired or improved functional property is disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:69827 USPATFULL
TITLE: Methods of evolving a polynucleotides by mutagenesis and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States

PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6365408	B1	20020402
APPLICATION INFO.:	US 2000-477763		20000104 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-100856, filed on 19 Jun 1998, now patented, Pat. No. US 6132970 Continuation of Ser. No. US 537874, now patented, Pat. No. US 5830721
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Kruse, Norman, Liebeschuetz, Joe
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 4167
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 28 OF 84 USPATFULL
TI Exonuclease-mediated nucleic acid reassembly in directed evolution
AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of exonuclease-mediated reassembly methods is the ability to reassemble nucleic acid strands that would otherwise be problematic to chimerize. Exonuclease-mediated reassembly methods can be used in combination with other mutagenesis methods provided herein. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:63712 USPATFULL
TITLE: Exonuclease-mediated nucleic acid reassembly in directed evolution
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, United States
Djavakhishvili, Tsotne David, San Diego, CA, United States
Frey, Gerhard Johann, San Diego, CA, United States
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6361974	B1	20020326
APPLICATION INFO.:	US 2000-535754		20000327 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000 Continuation-in-part of Ser. No. US

2000-498557, filed on 4 Feb 2000 Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000 Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999 Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999 Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1997-962504, filed on 31 Oct 1997, now patented, Pat. No. US 6029056 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965408 Continuation-in-part of Ser. No. US 1996-651568, filed on 22 May 1996, now patented, Pat. No. US 5939250

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Park, Hankyel T.	
LEGAL REPRESENTATIVE:	Gray Cary Ware & Freidenrich, Haile, Lisa A., Shen, Greg	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)	
LINE COUNT:	7313	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 29 OF 84 USPATFULL

TI End selection in directed evolution

AB This invention provides methods of obtaining novel polynucleotides and encoded polypeptides by the use of non-stochastic methods of directed evolution (DirectEvolution.TM.). A particular advantage of end-selection-based methods is the ability to recover full-length polynucleotides from a library of progeny molecules generated by mutagenesis methods. These methods include non-stochastic polynucleotide site-saturation mutagenesis (Gene Site Saturation Mutagenesis.TM.) and non-stochastic polynucleotide reassembly (GeneReassembly.TM.). This invention provides methods of obtaining novel enzymes that have optimized physical &/or biological properties. Through use of the claimed methods, genetic vaccines, enzymes, small molecules, and other desirable molecules can be evolved towards desirable properties. For example, vaccine vectors can be obtained that exhibit increased efficacy for use as genetic vaccines. Vectors obtained by using the methods can have, for example, enhanced antigen expression, increased uptake into a cell, increased stability in a cell, ability to tailor an immune response, and the like. Furthermore, this invention provides methods of obtaining a variety of novel biologically active molecules, in the fields of antibiotics, pharmacotherapeutics, and transgenic traits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2002:57570 USPATFULL
TITLE:	End selection in directed evolution
INVENTOR(S):	Short, Jay M., Encinitas, CA, United States Frey, Gerhard Johann, San Diego, CA, United States
PATENT ASSIGNEE(S):	Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6358709	B1	20020319	
APPLICATION INFO.:	US 2000-522289		20000309	(9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000 Continuation-in-part of Ser. No. US 2000-495052, filed on 13 Jan 2000 Continuation-in-part of Ser. No. US 1999-332835, filed on 14 Jun 1999, now abandoned Continuation-in-part of Ser. No. US 1999-276860, filed on 26 Mar 1999 Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, now patented, Pat. No. US 6238884 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, now patented, Pat. No. US 6171820 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1997-962504, filed on 31 Oct 1997 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965408 Continuation-in-part of Ser. No. US 1996-651568, filed on 22 May 1996, now patented, Pat. No. US 5939250

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Park, Hankyel T.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 36
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 7029
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 30 OF 84 USPATFULL
TI Human single nucleotide polymorphisms
AB The invention provides nucleic acid segments of the human genome, particularly nucleic acid segments from genes including polymorphic sites. Allele-specific primers and probes hybridizing to regions flanking or containing these sites are also provided. The nucleic acids, primers and probes are used in applications such as phenotype correlations, forensics, paternity testing, medicine and genetic analysis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:55155 USPATFULL
TITLE: Human single nucleotide polymorphisms
INVENTOR(S): Cargill, Michele, Gaithersburg, MD, UNITED STATES
Ireland, James S., Gaithersburg, MD, UNITED STATES
Lander, Eric S., Cambridge, MA, UNITED STATES
PATENT ASSIGNEE(S): Whitehead Institute for Biomedical Research, Cambridge, MA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002032319	A1	20020314	
APPLICATION INFO.:	US 2001-801274	A1	20010307	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-187510P	20000307 (60)
	US 2000-206129P	20000522 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HAMILTON BROOK SMITH AND REYNOLDS, P.C., TWO MILITIA DR, LEXINGTON, MA, 02421-4799
NUMBER OF CLAIMS: 12
EXEMPLARY CLAIM: 1
LINE COUNT: 8981
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 31 OF 84 USPATFULL
TI **METHOD** OF DNA SHUFFLING WITH POLYNUCLEOTIDES PRODUCED BY BLOCKING OR INTERRUPTING A SYNTHESIS OR AMPLIFICATION PROCESS
AB Disclosed is a process of performing "Sexual" PCR which includes generating random polynucleotides by interrupting or blocking a synthesis or amplification process to show or halt synthesis or amplification of at least one polynucleotide, optionally amplifying the polynucleotides, and reannealing the polynucleotides to produce random mutant polynucleotides. Also provided are vector and expression vehicles including such mutant polynucleotides, polypeptides expressed by the mutant polynucleotides and a **method** for producing random mutant polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:48252 USPATFULL
TITLE: **METHOD** OF DNA SHUFFLING WITH POLYNUCLEOTIDES PRODUCED BY BLOCKING OR INTERRUPTING A SYNTHESIS OR AMPLIFICATION PROCESS
INVENTOR(S): SHORT, JAY M., ENCINITAS, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002028443	A1	20020307	
APPLICATION INFO.:	US 1999-214645	A1	19990927	(9)
	WO 1997-US12239		19970709	

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: LISA A. HAILE PH.D., GRAY CARY WARE & FREIDENRICH LLP, 4365 EXECUTIVE DRIVE, SUITE 1600, SAN DIEGO, CA, 92121
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 2551
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 32 OF 84 USPATFULL
TI Exonucease-mediated gene assembly in directed evolution
AB A directed evolution process comprising novel methods for generating improved progeny molecules having desirable properties, including, for example, a **method** for rapid and facilitated **production** from a parental polynucleotide template, of a set of mutagenized progeny polynucleotides wherein at least one codon encoding each of the 20 naturally encoded amino acids is represented at each original codon position. This **method**, termed site-saturation mutagenesis, or simply saturation mutagenesis, is preferably based on the use of the degenerate N,N,G/T sequence. Also, a **method** of producing from a parental polypeptide template, a set of mutagenized progeny polypeptides wherein each of the 20 naturally encoded amino acids is

represented at each original amino acid position. Also, other mutagenization processes that can be used in combination with, or in lieu of, saturation mutagenesis, including, for example: (a) assembly and/or reassembly of polynucloetide building blocks (including sections of genes &/or of gene families) mediated by a source of exonuclease activity such as exonuclease III; and (b) introduction of two or more related polynucleotides into a suitable host cell such that a hybrid polynucleotide is generated by recombination and reductive reassortment. Also molecular property screening methods, including a preferred **method**, termed end selection, comprised of using an enzyme, such as a topoisomerase, a restriction endonuclease, &/or a nicking enzyme (such as N. BstNB I), to detect a specific terminal sequence in a working polynucleotide, to produce a ligatable end thereat, and to ligate and clone the working polynucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:45482 USPATFULL
TITLE: Exonucease-mediated gene assembly in directed evolution
INVENTOR(S): Short, Jay M., Encinitas, CA, United States
Frey, Gerhard J., San Diego, CA, United States
Djavakhishvili, Tsotne D., San Diego, CA, United States
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6352842	B1	20020305
APPLICATION INFO.:	US 1999-276860		19990326 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-267118, filed on 9 Mar 1999, now patented, Pat. No. US 6238884 Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999, now patented, Pat. No. US 6171820 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1997-962504, filed on 31 Oct 1997, now abandoned Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965408 Continuation-in-part of Ser. No. US 1996-651568, filed on 22 May 1996, now patented, Pat. No. US 5939250

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Park, Hankyel T.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A., Shen, Greg
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 4817
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 33 OF 84 USPATFULL
TI Expressed sequences of arabidopsis thaliana
AB Isolated nucleotide compositions and sequences are provided for Arabidopsis thaliana genes. The nucleic acid compositions find use in identifying homologous or related genes; in producing compositions that

modulate the expression or function of its encoded protein, mapping functional regions of the protein; and in studying associated physiological pathways. The genetic sequences may also be used for the genetic manipulation of cells, particularly of plant cells. The encoded gene products and modified organisms are useful for screening of biologically active agents, e.g. fungicides, insecticides, etc.; for elucidating biochemical pathways; and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:38558 USPATFULL
TITLE: Expressed sequences of arabidopsis thaliana
INVENTOR(S): Gorlach, Jorn, Durham, NC, UNITED STATES
An, Yong-Qiang, San Diego, CA, UNITED STATES
Hamilton, Carol M., Apex, NC, UNITED STATES
Price, Jennifer L., Raleigh, NC, UNITED STATES
Raines, Tracy M., Durham, NC, UNITED STATES
Yu, Yang, Martinsville, NJ, UNITED STATES
Rameaka, Joshua G., Durham, NC, UNITED STATES
Page, Amy, Durham, NC, UNITED STATES
Mathew, Abraham V., Cary, NC, UNITED STATES
Ledford, Brooke L., Holly Springs, NC, UNITED STATES
Woessner, Jeffrey P., Hillsborough, NC, UNITED STATES
Haas, William David, Durham, NC, UNITED STATES
Garcia, Carlos A., Carrboro, NC, UNITED STATES
Kricker, Maja, Pittsboro, NC, UNITED STATES
Slater, Ted, Apex, NC, UNITED STATES
Davis, Keith R., Durham, NC, UNITED STATES
Allen, Keith, Cary, NC, UNITED STATES
Hoffman, Neil, Chapel Hill, NC, UNITED STATES
Hurban, Patrick, Raleigh, NC, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002023280	A1	20020221	
APPLICATION INFO.:	US 2001-770444	A1	20010126	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-178502P	20000127	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PARADIGM GENETICS, INC, 104 ALEXANDER DRIVE, BUILDING 2, P O BOX 14528, RTP, NC, 277094528
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
LINE COUNT: 3845
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 34 OF 84 USPATFULL
TI Methods for recombining nucleic acids
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2002:24196 USPATFULL
TITLE: Methods for recombining nucleic acids

INVENTOR(S): Stemmer, Willem P.C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6344356	B1	20020205
APPLICATION INFO.:	US 2000-590778		20000608 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996, now patented, Pat. No. US 6117679 Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995, now patented, Pat. No. US 5811238 Continuation-in-part of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Kruse, Norman J., Quine, Jonathan Alan, Law Ofices of Jonathan Alan Quine
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 72 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT: 6408
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 35 OF 84 USPATFULL
TI Arrays for identifying agents which mimic or inhibit the activity of interferons
AB Methods and model systems for identifying and characterizing new therapeutic agents, particularly proteins, which mimic or inhibit the activity of all interferons, Type I interferons, IFN-α, IFN-β, or IFN-γ. The **method** comprises administering an interferon selected from the group consisting of IFN-α, IFN β, IFN-τ, IFN-ω, IFN-γ, and combinations thereof to cultured cells, administering the candidate agent to a duplicate culture of cells; and measuring the effect of the candidate agent and the interferon on the transcription or translation of one or, preferably, a plurality of the interferon stimulated genes or the interferon repressed genes (hereinafter referred to as "ISG's" and "IRGs", respectively). The model system is an array with gene probes that hybridize with from about 100 to about 5000 ISG and IRG transcripts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:231143 USPATFULL
TITLE: Arrays for identifying agents which mimic or inhibit the activity of interferons
INVENTOR(S): Silverman, Robert H., Beachwood, OH, United States
Williams, Bryan R. G., Cleveland, OH, United States
Der, Sandy, Cleveland, OH, United States
PATENT ASSIGNEE(S): The Cleveland Clinic Foundation, Cleveland, OH, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6331396	B1	20011218
APPLICATION INFO.:	US 1999-405438		19990923 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-101497P	19980923 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Zitomer, Stephanie
ASSISTANT EXAMINER: Forman, B J
LEGAL REPRESENTATIVE: Calfee, Halter & Griswold LLP
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 9639
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 36 OF 84 USPATFULL
TI Methods for modulating cellular and organismal phenotypes
AB Methods for identifying and controlling the genetic and metabolic pathways underlying complex phenotypes are provided. Conjoint polynucleotide segments that contribute to or disrupt elements of a multigenic phenotype are produced and expressed in cells of interest. Conjoint polynucleotide segments are recombined and/or mutated to give rise to libraries of recombinant concatamers which are expressed in cells of interest. Libraries of conjoint polynucleotide segments and recombinant concatamers are expressed episomally or integrated into the DNA of organelles or chromosomes. Cells are screened or selected to identify members of the population of cells exhibiting a desired phenotype. Libraries and vectors comprising conjoint polynucleotide segments and recombinant concatamers, as well as cells expressing such libraries and vectors or their components are provided. Kits containing conjoint polynucleotide segments, recombinant concatamers, vectors including such polynucleotides, and cells including such polynucleotides and vectors are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:223887 USPATFULL
TITLE: Methods for modulating cellular and organismal phenotypes
INVENTOR(S): Stemmer, Willem P.C., Los Gatos, CA, United States
Minshull, Jeremy, Menlo Park, CA, United States
Keenan, Robert J., San Francisco, CA, United States

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2001049104	A1	20011206	
APPLICATION INFO.:	US 2001-817015	A1	20010323	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-191782P	20000324	(60)
	US 2001-262617P	20010117	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: LAW OFFICES OF JONATHAN ALAN QUINE, P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 185
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 3382
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 37 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method**

for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:214886 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6323030	B1	20011127
APPLICATION INFO.:	US 1999-240310		19990129 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996, now patented, Pat. No. US 6117679 Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995, now patented, Pat. No. US 5811238 Continuation-in-part of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisnant, Ethan
LEGAL REPRESENTATIVE: Kruse, Norman J., Quine, Jonathan AlanThe Law Offices of Jonathan Alan Quine
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 72 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT: 6066
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 38 OF 84 USPATFULL
TI Chemically assembled nano-scale circuit elements
AB The present invention provides nano-scale devices, including electronic circuits, using DNA molecules as a support structure. DNA binding proteins are used to mask regions of the DNA as a material, such as a metal is coated onto the DNA. Included in the invention are DNA based transistors, capacitors, inductors and diodes. The present invention also provides methods of making integrated circuits using DNA molecules as a support structure. Methods are also included for making DNA based transistors, capacitors, inductors and diodes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:212120 USPATFULL
TITLE: Chemically assembled nano-scale circuit elements
INVENTOR(S): Connolly, Dennis Michael, Rochester, NY, United States
PATENT ASSIGNEE(S): Integrated Nano-Technologies, LLC. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001044114	A1	20011122
APPLICATION INFO.:	US 2001-860046	A1	20010517 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-315750, filed on 20 May 1999, GRANTED, Pat. No. US 6248529

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-86163P	19980520 (60)
	US 1998-95096P	19980803 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Gunnar G. Leinberg, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603
NUMBER OF CLAIMS: 71
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 1302
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 39 OF 84 USPATFULL
TI Oligonucleotides which specifically bind retroviral nucleocapsid proteins
AB The invention provides oligonucleotides which bind to retroviral nucleocapsid proteins with high affinity, molecular decoys for retroviral nucleocapsid proteins which inhibit viral replication, targeted molecules comprising high affinity oligonucleotides, assays for selecting test compounds, and related kits.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:202380 USPATFULL
TITLE: Oligonucleotides which specifically bind retroviral nucleocapsid proteins
INVENTOR(S): Rein, Alan, Columbia, MD, United States
Casas-Finet, Jose, Gaithersburg, MD, United States
Fisher, Robert, Sharpsburg, MD, United States
Fivash, Matthew, Frederick, MD, United States
Henderson, Louis E., Mount Airy, MD, United States
PATENT ASSIGNEE(S): The United States of America as represented by the Secretary of the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6316190	B1	20011113	
	WO 9744064		19971127	
APPLICATION INFO.:	US 1999-180903		19990712	(9)
	WO 1997-US8936		19970519	
			19990712	PCT 371 date
			19990712	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-17128P	19960520 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Park, Hankyel T.
LEGAL REPRESENTATIVE: Townsend & Townsend & Crew LLP
NUMBER OF CLAIMS: 37
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 8 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 2237
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 40 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination

AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:167941 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6297053	B1	20011002
APPLICATION INFO.:	US 2000-501698		20000210 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-133508, filed on 12 Aug 1998 Continuation of Ser. No. US 1998-100856, filed on 19 Jun 1998, now patented, Pat. No. US 6132970 Continuation of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Kruse, Esq., Norman J., Quin, Esq., Jonathan AlanLaw Office of Jonathan Alan Quine
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 3937
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 41 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:158074 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6291242	B1	20010918
APPLICATION INFO.:	US 1998-165060		19981002 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996, now patented, Pat. No. US 6117679 Continuation-in-part of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1995-564965, filed on 30 Nov 1995, now patented, Pat. No. US 5811238 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Liebeschuetz, Joe, Kruse, Norman
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 72 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT: 5808
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 42 OF 84 USPATFULL

TI Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex

AB A **method** for identifying nucleic acid ligands to target molecules using the SELEX procedure wherein the candidate nucleic acids contain photoreactive groups and nucleic acid ligands identified thereby are claimed. The complexes of increased affinity nucleic acids and target molecules formed in the procedure are crosslinked by irradiation to facilitate separation from unbound nucleic acids. In other methods partitioning of high and low affinity nucleic acids is facilitated by primer extension steps as shown in the figure in which chain termination nucleotides, digestion resistant nucleotides or nucleotides that allow retention of the cDNA product on an affinity matrix are differentially incorporated into the cDNA products of either the high or low affinity nucleic acids and the cDNA products are treated accordingly to amplification, enzymatic or chemical digestion or by contact with an affinity matrix.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:158016 USPATFULL
TITLE: Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex
INVENTOR(S): Gold, Larry, Boulder, CO, United States
Willis, Michael, Louisville, CO, United States
Koch, Tad, Boulder, CO, United States
Ringquist, Steven, Lyons, CO, United States
Jensen, Kirk, Boulder, CO, United States
Atkinson, Brent, Boulder, CO, United States
PATENT ASSIGNEE(S): SomaLogic, Inc., Boulder, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6291184	B1	20010918
APPLICATION INFO.:	US 1999-459553		19991213 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-93293, filed on 8 Jun 1998, now patented, Pat. No. US 6001577 Continuation of Ser. No. US 612895, now patented, Pat. No. US 5763177 Continuation-in-part of Ser. No. US 1993-123935, filed on 17 Sep 1993, now abandoned Continuation-in-part of

Ser. No. US 1993-143564, filed on 25 Oct 1993, now abandoned Continuation-in-part of Ser. No. US 1991-714131, filed on 10 Jun 1991, now patented, Pat. No. US 5475096 Continuation-in-part of Ser. No. US 1990-536428, filed on 11 Jun 1990, now abandoned , said Ser. No. US 612895 Continuation-in-part of Ser. No. US 1992-931473, filed on 17 Aug 1992, now patented, Pat. No. US 5270163 Division of Ser. No. US 714131

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Zitomer, Stephanie
LEGAL REPRESENTATIVE: Swanson & Bratschun, L.L.C.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 29 Drawing Figure(s); 35 Drawing Page(s)
LINE COUNT: 2330
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 43 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:152769 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
Crameri, Andreas, Mountain View, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6287861	B1	20010911	
APPLICATION INFO.:	US 1998-133508		19980812	(9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenaut, Ethan
LEGAL REPRESENTATIVE: Liebeschuetz, Joe, Kruse, Norman
NUMBER OF CLAIMS: 94
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 4081
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 44 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and

its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:136443 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6277638	B1	20010821
APPLICATION INFO.:	US 1999-232863		19990115 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1998-100856, filed on 19 Jun 1998, now patented, Pat. No. US 6132970 Continuation of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Liebeschuetz, Joe, Kruse, Norman
NUMBER OF CLAIMS: 73
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 4027
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 45 OF 84 USPATFULL
TI **Method** of chemically assembling nano-scale devices
AB The present invention provides nano-scale devices, including electronic circuits, using DNA molecules as a support structure. DNA binding proteins are used to mask regions of the DNA as a material, such as a metal is coated onto the DNA. Included in the invention are DNA based transistors, capacitors, inductors and diodes. The present invention also provides methods of making integrated circuits using DNA molecules as a support structure. Methods are also included for making DNA based transistors, capacitors, inductors and diodes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:93296 USPATFULL
TITLE: **Method** of chemically assembling nano-scale devices
INVENTOR(S): Connolly, Dennis Michael, Rochester, NY, United States
PATENT ASSIGNEE(S): Integrated Nano-Technologies, LLC, Rochester, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6248529	B1	20010619
APPLICATION INFO.:	US 1999-315750		19990520 (9)

	NUMBER	DATE

PRIORITY INFORMATION: US 1998-86163P 19980520 (60)
US 1998-95096P 19980803 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Horlick, Kenneth R.
ASSISTANT EXAMINER: Siew, Jeffrey
LEGAL REPRESENTATIVE: Nixon Peabody LLP
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Figure(s); 4 Drawing Page(s)
LINE COUNT: 1011
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 46 OF 84 USPATFULL
TI **Zinc finger** protein derivatives and methods therefor
AB The present invention provides **zinc finger** nucleotide binding polypeptide variants that have at least two **zinc finger** modules that bind to a target cellular nucleotide sequence and modulate the transcriptional function of the cellular nucleotide sequence. Also provided are methods of use of such **zinc finger** nucleotide binding polypeptide variants and methods for isolating the same using expression libraries encoding the polypeptide variants containing randomized substitutions of amino acids. Exemplary **zinc finger** nucleotide binding polypeptide variants of the invention include two cysteines and two histidines whereby both cysteines are amino proximal to both histidines.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2001:82893 USPATFULL
TITLE: **Zinc finger** protein derivatives and methods therefor
INVENTOR(S): Barbas, III, Carlos F., San Diego, CA, United States
Gottesfeld, Joel M., San Diego, CA, United States
Wright, Peter E., La Jolla, CA, United States
PATENT ASSIGNEE(S): The Scripps Research Institute, La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6242568	B1	20010605	
	WO 9519431		19950720	
APPLICATION INFO.:	US 1996-676318		19961230	(8)
	WO 1995-US829		19950118	
			19961230	PCT 371 date
			19961230	PCT 102(e) date

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-312604, filed on 28 Sep 1994, now abandoned Continuation-in-part of Ser. No. US 1994-183119, filed on 18 Jan 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapu
ASSISTANT EXAMINER: Moore, William W.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 56
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 26 Drawing Figure(s); 23 Drawing Page(s)
LINE COUNT: 3179
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 47 OF 84 USPATFULL
TI End selection in directed evolution

AB A directed evolution process comprising novel methods for generating improved progeny molecules having desirable properties, including, for example, a **method** for rapid and facilitated **production** from a parental polynucleotide template, of a set of mutagenized progeny polynucleotides wherein at least one codon encoding each of the 20 naturally encoded amino acids is represented at each original codon position. This **method**, termed site-saturation mutagenesis, or simply saturation mutagenesis, is preferably based on the use of the degenerate N,N,G/T sequence. Also, a **method** of producing from a parental polypeptide template, a set of mutagenized progeny polypeptides wherein each of the 20 naturally encoded amino acids is represented at each original amino acid position. Also, other mutagenization processes that can be used in combination with, or in lieu of, saturation mutagenesis, including, for example: (a) assembly and/or reassembly of polynucloetide building blocks, which building blocks can be sections of genes &/or of gene families; and (b) introduction of two or more related polynucleotides into a suitable host cell such that a hybrid polynucleotide is generated by recombination and reductive reassortment. Also, vector and expression vehicles including such polynucleotides and correspondingly expressed polypeptides. Also molecular property screening methods, including a preferred **method**, termed end selection, comprised of using an enzyme, such as a topoisomerase, a restriction endonuclease, &/or a nicking enzyme (such as N. BstNB I), to detect a specific terminal sequence in a working polynucleotide, to produce a ligatable end thereat, and to ligate and clone the working polynucleotide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:78911 USPATFULL
TITLE: End selection in directed evolution
INVENTOR(S): Short, Jay M., Encinitas, CA, United States
Frey, Gerhard Johann, San Diego, CA, United States
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6238884	B1	20010529
APPLICATION INFO.:	US 1999-267118		19990309 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-246178, filed on 4 Feb 1999 Continuation-in-part of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Park, Hankyel T.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 4534
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 48 OF 84 USPATFULL
TI Nucleic acid encoding mammalian mu opioid receptor
AB The invention relates generally to compositions of and methods for

obtaining mu opioid receptor polypeptides. The invention relates as well to polynucleotides encoding mu opioid receptor polypeptides, the recombinant vectors carrying those sequences, the recombinant host cells including either the sequences or vectors, and recombinant opioid receptor polypeptides. The invention includes as well, methods for using the isolated, recombinant receptor polypeptide in assays designed to select and improve substances capable of interacting with mu opioid receptor polypeptides for use in diagnostic, drug design and therapeutic applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:75149 USPATFULL
TITLE: Nucleic acid encoding mammalian mu opioid receptor
INVENTOR(S): Yu, Lei, Indianapolis, IN, United States
PATENT ASSIGNEE(S): Advanced Research & Technology Institute, Indianapolis, IN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6235496	B1	20010522
APPLICATION INFO.:	US 1993-120601		19930913 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-56886, filed on 8 Mar 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kunz, Gary L.
ASSISTANT EXAMINER: Landsman, Robert S.
LEGAL REPRESENTATIVE: Fulbright & Jaworski LLP
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 2811
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 49 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:14264 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P.C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6180406	B1	20010130
APPLICATION INFO.:	US 1998-99015		19980617 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1996-621859, filed on 25 Mar 1996 Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995, now patented, Pat. No. US 5811238

	Continuation-in-part of Ser. No. US 537874, now patented, Pat. No. US 5830721 Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994, now patented, Pat. No. US 5605793
DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Jones, W. Gary
ASSISTANT EXAMINER:	Whisenant, Ethan
LEGAL REPRESENTATIVE:	Liebeschuetz, Joe, Kruse, Norman
NUMBER OF CLAIMS:	69
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	37 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT:	6183

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 50 OF 84 USPATFULL

TI Saturation mutagenesis in directed evolution

AB Disclosed is a rapid and facilitated **method** of producing from a parental template polynucleotide, a set of mutagenized progeny polynucleotides whereby at each original codon position there is produced at least one substitute codon encoding each of the 20 naturally encoded amino acids. Accordingly, there is also provided a **method** of producing from a parental template polypeptide, a set of mutagenized progeny polypeptides wherein each of the 20 naturally encoded amino acids is represented at each original amino acid position. The **method** provided is termed site-saturation mutagenesis, or simply saturation mutagenesis, and can be used in combination with other mutagenization processes, such as, for example, a process wherein two or more related polynucleotides are introduced into a suitable host cell such that a hybrid polynucleotide is generated by recombination and reductive reassortment. Also provided are vector and expression vehicles including such polynucleotides, polypeptides expressed by the hybrid polynucleotides and a **method** for screening for hybrid polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	2001:4494 USPATFULL
TITLE:	Saturation mutagenesis in directed evolution
INVENTOR(S):	Short, Jay M., Encinitas, CA, United States
PATENT ASSIGNEE(S):	Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6171820	B1	20010109
APPLICATION INFO.:	US 1999-246178		19990204 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1998-185373, filed on 3 Nov 1998 Continuation-in-part of Ser. No. US 1996-760489, filed on 5 Dec 1996, now patented, Pat. No. US 5830696 Continuation-in-part of Ser. No. US 1997-962504, filed on 31 Oct 1997 Continuation-in-part of Ser. No. US 1996-677112, filed on 9 Jul 1996, now patented, Pat. No. US 5965405, issued on 12 Oct 1999 Continuation-in-part of Ser. No. US 1996-651568, filed on 22 May 1996, now patented, Pat. No. US 5939250, issued on 17 Aug 1999		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-8311P	19951207 (60)
	US 1995-8316P	19951207 (60)
DOCUMENT TYPE:	Patent	

FILE SEGMENT: Granted
PRIMARY EXAMINER: Park, Hankyel T.
LEGAL REPRESENTATIVE: Gary Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 3968
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 51 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:174421 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6165793		20001226
APPLICATION INFO.:	US 1998-75511		19980508 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-621859, filed on 25 Mar 1996
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Liebeschuetz, Joe, Kruse, Norman
NUMBER OF CLAIMS: 62
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 37 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT: 6603
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 52 OF 84 USPATFULL
TI Compositions and methods of use of mammalian retrotransposons
AB The invention relates to an isolated DNAc molecule comprising a promoter P and an L1 cassette sequence comprising a core L1 retrotransposon element and methods of use thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:157213 USPATFULL
TITLE: Compositions and methods of use of mammalian retrotransposons
INVENTOR(S): Kazazian, Jr., Haig H., Baltimore, MD, United States
Boeke, Jef D., Baltimore, MD, United States
Moran, John V., Exton, PA, United States
Dombroski, Beth A., Springfield, PA, United States
PATENT ASSIGNEE(S): The John Hopkins University, Baltimore, MD, United

States (U.S. corporation)
The Trustees of the University of Pennsylvania, Philadelphia, PA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6150160		20001121	
APPLICATION INFO.:	US 1997-847844		19970428	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1996-749805, filed on 15 Nov 1996, now abandoned

	NUMBER	DATE
PRIORITY INFORMATION:	US 1995-6831P	19951116 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Chambers, Jasemine
ASSISTANT EXAMINER: Baker, Anne-Marie
LEGAL REPRESENTATIVE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 18 Drawing Figure(s); 33 Drawing Page(s)
LINE COUNT: 3799
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 53 OF 84 USPATFULL
TI **Zinc finger** protein derivatives and methods therefor
AB **Zinc finger** proteins of the Cys.sub.2 His.sub.2 type represent a class of malleable DNA binding proteins which may be selected to bind diverse sequences. Typically, **zinc finger** proteins containing three **zinc finger** domains, like the murine transcription factor Zif268 and the human transcription factor Sp1, bind nine contiguous base pairs (bp). To create a class of proteins which would be generally applicable to target unique sites within complex genomes, the present invention provides a polypeptide linker that fuses two three-finger proteins. Two six-fingered proteins were created and demonstrated to bind 18 contiguous bp of DNA in a sequence specific fashion. Expression of these proteins as fusions to activation or repression domains allows transcription to be specifically up or down modulated within cells. Polydactyl **zinc finger** proteins are broadly applicable as genome-specific transcriptional switches in gene therapy strategies and the development of novel transgenic plants and animals. Such proteins are useful for inhibiting, activating or enhancing gene expression from a **zinc finger**-nucleotide binding motif containing promoter or other transcriptional control element, as well as a structural gene or RNA sequence.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:146512 USPATFULL
TITLE: **Zinc finger** protein derivatives and methods therefor
INVENTOR(S): Barbas, III, Carlos F., San Diego, CA, United States
Gottesfeld, Joel M., Del Mar, CA, United States
Wright, Peter E., La Jolla, CA, United States
PATENT ASSIGNEE(S): The Scripps Research Institute, La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6140466		20001031	
APPLICATION INFO.:	US 1997-863813		19970527	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 676318
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Achutamurthy, Ponnathapu
ASSISTANT EXAMINER: Moore, William W.
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Haile, Lisa A.
NUMBER OF CLAIMS: 54
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Figure(s); 26 Drawing Page(s)
LINE COUNT: 4196
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 54 OF 84 USPATFULL
TI Methods of shuffling polynucleotides
AB The invention is directed to methods of shuffling polynucleotide variants. The methods entail conducting a multi-cyclic polynucleotide extension process on partially annealed polynucleotide strands having sequences from the plurality of chosen polynucleotide variants, the polynucleotide strands having regions of similarity and regions of heterology with each other and being partially annealed through the regions of similarity, under conditions whereby one strand serves as a template for extension of another strand with which it is partially annealed to generate a population of shuffled polynucleotides. Shuffled polynucleotides are then selected or screened to identify a shuffled polynucleotide having a desired functional property.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:138060 USPATFULL
TITLE: Methods of shuffling polynucleotides
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6132970		20001017	
APPLICATION INFO.:	US 1998-100856		19980619	(9)
RELATED APPLN. INFO.:	Division of Ser. No. US 537874			

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Liebeschuetz, Esq., Joe, Kruse, Esq., Norman
NUMBER OF CLAIMS: 47
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 4219
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 55 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:121322 USPATFULL
TITLE: Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S): Stemmer, Willem P. C., Los Gatos, CA, United States
PATENT ASSIGNEE(S): Maxygen, Inc., Redwood City, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6117679		20000912
APPLICATION INFO.:	US 1996-621859		19960325 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-564955, filed on 30 Nov 1995, now patented, Pat. No. US 5811238 which is a continuation-in-part of Ser. No. US 537874
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Kruse, Norman J., Liebeschuetz, Joe
NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 72 Drawing Figure(s); 37 Drawing Page(s)
LINE COUNT: 6708
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 56 OF 84 USPATFULL
TI Polynucleotide encoding mu opioid receptor
AB The invention relates generally to compositions of and methods for obtaining mu opioid receptor polypeptides. The invention relates as well to polynucleotides encoding mu opioid receptor polypeptides, the recombinant vectors carrying those sequences, the recombinant host cells including either the sequences or vectors, recombinant opioid receptor polypeptides, and antibodies immunoreactive with mu opioid receptors. The invention includes as well, methods for using the isolated, recombinant receptor polypeptide in assays designed to select and improve substances capable of interacting with mu opioid receptor polypeptides for use in diagnostic, drug design and therapeutic applications.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:105677 USPATFULL
TITLE: Polynucleotide encoding mu opioid receptor
INVENTOR(S): Yu, Lei, Indianapolis, IN, United States
PATENT ASSIGNEE(S): Indiana University, Indianapolis, IN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6103492		20000815
APPLICATION INFO.:	US 1997-889108		19970707 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1994-305518, filed on 13 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-120601, filed on 13 Sep 1993 which is a continuation-in-part of Ser. No. US 1993-56886, filed on 8 Mar 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kunz, Gary L.
ASSISTANT EXAMINER: Landsman, Robert
LEGAL REPRESENTATIVE: Fulbright & Jaworski
NUMBER OF CLAIMS: 37

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 26 Drawing Figure(s); 27 Drawing Page(s)
LINE COUNT: 6028
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 57 OF 84 USPATFULL
TI Compositions containing nucleic acids and ligands for therapeutic treatment
AB Preparations of conjugates of a receptor-binding internalized ligand and a cytocide-encoding agent and compositions containing such preparations are provided. The conjugates contain a polypeptide that is reactive with an FGF receptor, such as bFGF, or another heparin-binding growth factor, cytokine, or growth factor coupled to a nucleic acid binding domain. One or more linkers may be used in the conjugation. The linker is selected to increase the specificity, toxicity, solubility, serum stability, or intracellular availability, and promote nucleic acid condensation of the targeted moiety. The conjugates are complexed with a cytocide-encoding agent, such as DNA encoding saporin. Conjugates of a receptor-binding internalized ligand to a nucleic acid molecule are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 2000:31403 USPATFULL
TITLE: Compositions containing nucleic acids and ligands for therapeutic treatment
INVENTOR(S): Baird, J. Andrew, San Diego, CA, United States
Chandler, Lois Ann, Encinitas, CA, United States
Sosnowski, Barbara A., Coronado, CA, United States
PATENT ASSIGNEE(S): Selective Genetics, Inc., La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6037329		20000314
APPLICATION INFO.:	US 1996-718904		19960924 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-441979, filed on 16 May 1995, now abandoned which is a continuation-in-part of Ser. No. US 1994-213446, filed on 15 Mar 1994, now abandoned Ser. No. Ser. No. US 1994-213447, filed on 15 Mar 1994, now abandoned Ser. No. Ser. No. US 1994-297961, filed on 29 Aug 1994, now abandoned And Ser. No. US 1994-305771, filed on 13 Sep 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Priebe, Scott D.
ASSISTANT EXAMINER: Nguyen, Dave Trong
LEGAL REPRESENTATIVE: Seed and Berry LLP
NUMBER OF CLAIMS: 35
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 34 Drawing Figure(s); 25 Drawing Page(s)
LINE COUNT: 7163
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 58 OF 84 USPATFULL
TI Cobalt Schiff base compounds
AB The invention relates to novel cobalt compounds, having a general structure ##STR1## wherein Co is either Co(II) or Co(III), and each of the R groups is selected from the group consisting of hydrogen, alkyl, hydrophilic organic acid, alkyl amine, amine, alkyl alcohol, alcohol, polypeptide or nucleic acid. The invention further relates to methods of using such compounds to reduce the biological activity of proteins, particularly enzymes and **zinc finger**-containing

proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1999:170582 USPATFULL
TITLE:	Cobalt Schiff base compounds
INVENTOR(S):	Meade, Thomas J., Altadena, CA, United States Takeuchi, Toshihiko, San Francisco, CA, United States Gray, Harry B., Pasadena, CA, United States Simon, Melvin, San Marino, CA, United States Louie, Angelique Y., Pasadena, CA, United States
PATENT ASSIGNEE(S):	California Institute of Technology, Pasadena, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6008190		19991228
APPLICATION INFO.:	US 1995-570761		19951212 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-358068, filed on 15 Dec 1994		

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Russel, Jeffrey E.
LEGAL REPRESENTATIVE:	Flehr Hohbach Test Albritton & Herbert LLP, Trecartin, Esq., Richard F., Silva, Esq., Robin M.
NUMBER OF CLAIMS:	21
EXEMPLARY CLAIM:	10
NUMBER OF DRAWINGS:	16 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT:	1652

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 59 OF 84 USPATFULL

TI Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex

AB A **method** for identifying nucleic acid ligands to target molecules using the SELEX procedure wherein the candidate nucleic acids contain photoreactive groups and nucleic acid ligands identified thereby are claimed. The complexes of increased affinity nucleic acids and target molecules formed in the procedure are crosslinked by irradiation to facilitate separation from unbound nucleic acids. In other methods partitioning of high and low affinity nucleic acids is facilitated by primer extension steps as shown in the figure in which chain termination nucleotides, digestion resistant nucleotides or nucleotides that allow retention of the cDNA product on an affinity matrix arc differentially incorporated into the cDNA products of either the high or low affinity nucleic acids and the cDNA products are treated accordingly to amplification, enzymatic or chemical digestion or by contact with an affinity matrix.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1999:163433 USPATFULL
TITLE:	Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex
INVENTOR(S):	Gold, Larry, Boulder, CO, United States Willis, Michael, Louisville, CO, United States Koch, Tad, Boulder, CO, United States Ringquist, Steven, Lyons, CO, United States Jensen, Kirk, Boulder, CO, United States Atkinson, Brent, Boulder, CO, United States
PATENT ASSIGNEE(S):	NeXstar Pharmaceuticals, Inc., Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6001577		19991214
APPLICATION INFO.:	US 1998-93293		19980608 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 612895		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Zitomer, Stephanie W.		
LEGAL REPRESENTATIVE:	Swanson & Bratschun LLC		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	29 Drawing Figure(s); 35 Drawing Page(s)		
LINE COUNT:	2750		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 60 OF 84 USPATFULL

TI Detection of nucleic acids by multiple sequential invasive cleavages

AB The present invention relates to means for the detection and characterization of nucleic acid sequences, as well as variations in nucleic acid sequences. The present invention also relates to methods for forming a nucleic acid cleavage structure on a target sequence and cleaving the nucleic acid cleavage structure in a site-specific manner. The structure-specific nuclease activity of a variety of enzymes is used to cleave the target-dependent cleavage structure, thereby indicating the presence of specific nucleic acid sequences or specific variations thereof. The present invention further relates to methods and devices for the separation of nucleic acid molecules based on charge. The present invention also provides methods for the detection of non-target cleavage products via the formation of a complete and activated protein binding region. The invention further provides sensitive and specific methods for the detection of human cytomegalovirus nucleic acid in a sample.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1999:155453 USPATFULL
TITLE:	Detection of nucleic acids by multiple sequential invasive cleavages
INVENTOR(S):	Hall, Jeff G., Madison, WI, United States Lyamichev, Victor I., Madison, WI, United States Mast, Andrea L., Madison, WI, United States Brow, Mary Ann D., Madison, WI, United States
PATENT ASSIGNEE(S):	Third Wave Technologies, Inc., Madison, WI, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5994069		19991130
APPLICATION INFO.:	US 1997-823516		19970324 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 1997-US1072, filed on 21 Jan 1997 which is a continuation-in-part of Ser. No. US 1996-759038, filed on 2 Dec 1996 And a continuation-in-part of Ser. No. US 1996-758314, filed on 2 Dec 1996 which is a continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996 which is a continuation-in-part of Ser. No. US 1996-682853, filed on 12 Jul 1996 which is a continuation-in-part of Ser. No. US 1996-599491, filed on 24 Jan 1996 , said Ser. No. US 759038 which is a continuation-in-part of Ser. No. US 1996-756386, filed on 26 Nov 1996		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Jones, W. Gary		

ASSISTANT EXAMINER: Shoemaker, Debra
LEGAL REPRESENTATIVE: Medlen & Carroll, LLP
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 169 Drawing Figure(s); 128 Drawing Page(s)
LINE COUNT: 14892
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 61 OF 84 USPATFULL
TI **Method** of DNA reassembly by interrupting synthesis
AB Disclosed is a process of performing Sexual PCR which includes generating random polynucleotides by interrupting or blocking a synthesis or amplification process to show or halt synthesis or amplification of at least one polynucleotide, optionally amplifying the polynucleotides, and reannealing the polynucleotides to produce random mutant polynucleotides. Also provided are vector and expression vehicles including such mutant polynucleotides, polypeptides expressed by the mutant polynucleotides and a **method** for producing random mutant polypeptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:124744 USPATFULL
TITLE: **Method** of DNA reassembly by interrupting synthesis
INVENTOR(S): Short, Jay M., Encinitas, CA, United States
PATENT ASSIGNEE(S): Diversa Corporation, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5965408		19991012	
APPLICATION INFO.:	US 1996-677112		19960709	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Zitomer, Stephanie
LEGAL REPRESENTATIVE: Gray, Cary, Ware & Freidenrich, LLP, Haile, Ph. D., Lisa A.
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 6 Drawing Page(s)
LINE COUNT: 2626
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 62 OF 84 USPATFULL
TI In vitro peptide and antibody display libraries
AB Improved methods and novel compositions for identifying peptides and single-chain antibodies that bind to predetermined receptors or epitopes. Such peptides and antibodies are identified by improved and novel methods for affinity screening of polysomes displaying nascent peptides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:78552 USPATFULL
TITLE: In vitro peptide and antibody display libraries
INVENTOR(S): Mattheakis, Larry C., Cupertino, CA, United States
Dower, William J., Menlo Park, CA, United States
PATENT ASSIGNEE(S): Affymax Technologies N.V., Greenford, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5922545		19990713

APPLICATION INFO.: US 1997-902623 19970729 (8)
RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-586176, filed on 17 Jan 1996, now abandoned which is a continuation-in-part of Ser. No. WO 1994-US12206, filed on 25 Oct 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-300262, filed on 2 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-144775, filed on 29 Oct 1993, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wortman, Donna C.
LEGAL REPRESENTATIVE: Stevens, Lauren L., Dunn, Tracy J.
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 11 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 3543
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 63 OF 84 USPATFULL
TI Methods for inactivating target DNA and for detecting conformational change in a nucleic acid
AB The present invention reveals a **method** for enzymatically inactivating a target DNA, a **method** for detecting conformational change in a nucleic acid, and a **method** for detecting the presence of a target DNA molecule. The **method** for enzymatically inactivating a target DNA involves preparing a plasmid, phage, virus, or any other delivery vehicle such as a liposome containing a gene encoding a nuclease. The delivery vehicle is then delivered into cells. The cells are induced to produce the nuclease and the target DNA is then enzymatically inactivated. Alternatively, the nuclease protein is delivered directly to cells and used to enzymatically inactivate the target DNA. The **method** for detecting conformational change in a nucleic acid requires contacting a nucleic acid with a hybrid restriction nuclease, determining whether the hybrid restriction nuclease has interacted with the nucleic acid, and detecting the conformational change in the nucleic acid. The **method** for detecting the presence of a target DNA entails contacting a target DNA with a fusion protein, comprising a DNA binding protein joined to a detection domain such as the constant region of an immunoglogulin heavy chain molecule.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:72487 USPATFULL
TITLE: Methods for inactivating target DNA and for detecting conformational change in a nucleic acid
INVENTOR(S): Chandrasegaran, Srinivasan, Baltimore, MD, United States
PATENT ASSIGNEE(S): Johns Hopkins University, Baltimore, MD, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5916794		19990629
APPLICATION INFO.:	US 1996-647449		19960507 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-575361, filed on 20 Dec 1995, now patented, Pat. No. US 5792640 which is a continuation-in-part of Ser. No. US 1994-346293, filed on 23 Nov 1994, now patented, Pat. No. US 5487994 which is a continuation-in-part of Ser. No. US 1993-126564, filed on 27 Sep 1993, now patented, Pat. No. US 5436150, issued on 25 Jul 1995 which is a continuation-in-part of Ser. No. US 1993-17493, filed

on 12 Feb 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-862831, filed on 3 Apr 1992, now patented, Pat. No. US 5356802

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Housel, James C.
ASSISTANT EXAMINER: Swartz, Rodney P.
LEGAL REPRESENTATIVE: Cushman Darby & Cushman, IP Group of Pillsbury, Madison & Sutro
NUMBER OF CLAIMS: 15
EXEMPLARY CLAIM: 1
LINE COUNT: 1533
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 64 OF 84 USPATFULL
TI Programmable genotoxic agents and uses therefor
AB The compositions and methods disclosed herein provide heterobifunctional programmable genotoxic compounds that can be designed to kill selected cells present in a heterogenous cell population. The present compounds comprise a first agent that inflicts damage on cellular DNA, and a second agent that attracts a macromolecular cell component such as a protein, which in turn shields genomic lesions from repair. Unrepaired lesions therefore persist in the cellular genome and contribute to the death of selected cells. In contrast, lesions formed in nonselected cells, which lack the cell component, are unshielded and thus are repaired. As a result, compounds described herein are less toxic to nonselected cells. Compounds of this invention can be designed to cause the selective killing of transformed cells, viral-infected cells and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1999:33847 USPATFULL
TITLE: Programmable genotoxic agents and uses therefor
INVENTOR(S): Essigmann, John M., Cambridge, MA, United States
Croy, Robert G., Belmont, MA, United States
Chen, Zhenghuan, Malden, MA, United States
PATENT ASSIGNEE(S): Massachusette Institute of Technology, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5882941		19990316	
APPLICATION INFO.:	US 1994-239428		19940504	(8)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Elliott, George C.
ASSISTANT EXAMINER: Brusca, John S.
LEGAL REPRESENTATIVE: Testa Hurwitz & Thibeault, LLP
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 2399
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 65 OF 84 USPATFULL
TI Programmable genotoxic agents and uses therefor
AB The compositions and methods disclosed herein provide heterobifunctional programmable genotoxic compounds that can be designed to kill selected cells present in a heterogenous cell population. The present compounds comprise a first agent that inflicts damage on cellular DNA, and a second agent that attracts a macromolecular cell component such as a protein, which in turn shields genomic lesions from repair. Unrepaired

lesions therefore persist in the cellular genome and contribute to the death of selected cells. In contrast, lesions formed in nonselected cells, which lack the cell component, are unshielded and thus are repaired. As a result, compounds described herein are less toxic to nonselected cells. Compounds of this invention can be designed to cause the selective killing of transformed cells, viral-infected cells and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1999:30602 USPATFULL
TITLE:	Programmable genotoxic agents and uses therefor
INVENTOR(S):	Essigmann, John M., Cambridge, MA, United States Croy, Robert G., Belmont, MA, United States Yarema, Kevin J., Malden, MA, United States Morningstar, Marshall, Cambridge, MA, United States
PATENT ASSIGNEE(S):	Massachusetts Institute of Technology, Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5879917		19990309
APPLICATION INFO.:	US 1995-434664		19950504 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-239428, filed on 4 May 1994		

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Ketter, James
ASSISTANT EXAMINER:	Brusca, John S.
LEGAL REPRESENTATIVE:	Testa Hurwitz & Thibeault,LLP
NUMBER OF CLAIMS:	19
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	21 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT:	2893

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 66 OF 84 USPATFULL

TI DNA mutagenesis by random fragmentation and reassembly

AB A **method** for generating libraries of displayed peptides and/or antibodies (Abs) suitable for affinity interaction screening or phenotypic screening comprising: (i) obtaining selected library members comprising a displayed peptide and/or Ab and the corressponding polynucleotide (PN), or copies of it, (ii) pooling and fragmenting the PN, or copies of it, to form fragments, (iii) performing PCR amplification and thereby homologously recombining the fragments to form a shuffled pool of recombined PNs, which are not present in the selected library of (i).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1998:134871 USPATFULL
TITLE:	DNA mutagenesis by random fragmentation and reassembly
INVENTOR(S):	Stemmer, Willem P. C., Los Gatos, CA, United States Crameri, Andreas, Mountain View, CA, United States
PATENT ASSIGNEE(S):	Affymax Technologies N.V., Curacao, Netherlands Antilles (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5830721		19981103	
	WO 9522625		19950824	
APPLICATION INFO.:	US 1996-537874		19960304	(8)
	WO 1995-US2126		19950217	
			19960304	PCT 371 date

19960304 PCT 102(e) date

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Jones, W. Gary
ASSISTANT EXAMINER: Whisenant, Ethan
LEGAL REPRESENTATIVE: Townsend & Townsend & Crew
NUMBER OF CLAIMS: 28
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 15 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 3865
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 67 OF 84 USPATFULL
TI Control of gene expression by ionizing radiation
AB This invention relates to genetic constructs which comprise an enhancer-promoter region which is responsive to radiation, and at least one structural gene whose expression is controlled by the enhancer-promoter. This invention also relates to methods of destroying, altering, or inactivating cells in target tissue by delivering the genetic constructs to the cells of the tissues and inducing expression of the structural gene or genes in the construct by exposing the tissues to ionizing radiation. This invention is useful for treating patients with cancer, clotting disorders, myocardial infarction, and other diseases for which target tissues can be identified and for which gene expression of the construct within the target tissues can alleviate the disease or disorder.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1998:122387 USPATFULL
TITLE: Control of gene expression by ionizing radiation
INVENTOR(S): Weichselbaum, Ralph R., Chicago, IL, United States
Hallahan, Dennis E., Chicago, IL, United States
Sukhatme, Vikas P., Chicago, IL, United States
Kufe, Donald W., Wellesley, MA, United States
PATENT ASSIGNEE(S): Arch Development Corp., Chicago, IL, United States (U.S. corporation)
Dana-Farber Cancer Institute, Boston, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5817636		19981006
APPLICATION INFO.:	US 1995-486338		19950607 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1994-212308, filed on 14 Mar 1994, now patented, Pat. No. US 5612318 which is a continuation of Ser. No. US 1993-35897, filed on 18 Mar 1993, now abandoned which is a continuation of Ser. No. US 1990-633626, filed on 20 Dec 1990, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Campell, Bruce R.
LEGAL REPRESENTATIVE: Arnold, White & Durkee
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 1391
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 68 OF 84 USPATFULL
TI Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
AB A **method** for DNA reassembly after random fragmentation, and

its application to mutagenesis of nucleic acid sequences by in vitro or in vivo recombination is described. In particular, a **method** for the **production** of nucleic acid fragments or polynucleotides encoding mutant proteins is described. The present invention also relates to a **method** of repeated cycles of mutagenesis, shuffling and selection which allow for the directed molecular evolution in vitro or in vivo of proteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1998:115555 USPATFULL
TITLE:	Methods for generating polynucleotides having desired characteristics by iterative selection and recombination
INVENTOR(S):	Stemmer, Willem P. C., Los Gatos, CA, United States Crameri, Andreas, Mountain View, CA, United States
PATENT ASSIGNEE(S):	Affymax Technologies N.V., De Ruyderkade, Netherlands Antilles (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5811238		19980922
APPLICATION INFO.:	US 1995-564955		19951130 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-198431, filed on 17 Feb 1994 And Ser. No. US 1996-537874, filed on 4 Mar 1996

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Jones, W. Gary
ASSISTANT EXAMINER:	Whisenant, Ethan
LEGAL REPRESENTATIVE:	Townsend & Townsend & Crew
NUMBER OF CLAIMS:	22
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	22 Drawing Figure(s); 22 Drawing Page(s)
LINE COUNT:	4466

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 69 OF 84 USPATFULL

TI Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex

AB A **method** for identifying nucleic acid ligands to target molecules using the SELEX pocedure wherein the candidate nucleic acids contain photoreactive groups and nucleic acid ligands identified thereby are claimed. The complexes of increased affinity nucleic acids and target molecules formed in the procedure are crosslinked by irradiation to facilitate separation from unbound nucleic acids. In other methods partioning of high and low affinity nucleic acids is facilitated by primer extension steps as shown in the figure in which chain termination nucleotides, digestion resistant nucleotides or nucleotides that allow retention of the cDNA product on an affinity matrix are differentially incorporated into the cDNA products of either the high or low affinity nucleic acids and the cDNA products are treated accordingly to amplification, enzymatic or chemical digestion or by contact with an affinity matrix.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1998:64969 USPATFULL
TITLE:	Systematic evolution of ligands by exponential enrichment: photoselection of nucleic acid ligands and solution selex
INVENTOR(S):	Gold, Larry, Boulder, CO, United States Willis, Michael, Louisville, CO, United States Koch, Tad, Boulder, CO, United States

PATENT ASSIGNEE(S): Ringquist, Steven, Lyons, CO, United States
Jensen, Kirk, Boulder, CO, United States
Atkinson, Brent, Boulder, CO, United States
NeXstar Pharmaceuticals, Inc., Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5763177		19980609	
	WO 9508003		19950323	
APPLICATION INFO.:	US 1996-612895		19960308	(8)
	WO 1994-US10562		19940916	
			19960308	PCT 371 date
			19960308	PCT 102(e) date

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-143564, filed on 25 Oct 1993, now abandoned And Ser. No. US 1993-123935, filed on 17 Sep 1993, now abandoned which is a continuation-in-part of Ser. No. US 1991-714131, filed on 10 Jun 1991, now patented, Pat. No. US 5475096 which is a continuation-in-part of Ser. No. US 1990-536428, filed on 11 Jun 1990, now abandoned , said Ser. No. US -143564 which is a continuation-in-part of Ser. No. US -714131 And Ser. No. US 1992-931473, filed on 17 Aug 1992, now patented, Pat. No. US 5270163, issued on 14 Dec 1993
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Zitomer, Stephanie W.
LEGAL REPRESENTATIVE: Swanson & Bratschun LLC
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 29 Drawing Figure(s); 35 Drawing Page(s)
LINE COUNT: 2714
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 70 OF 84 USPATFULL

TI **Method** and device for diagnosing and distinguishing chest pain in early onset thereof

AB A diagnostic test, and a device for conducting the test, for assessing whether patient chest pain is cardiac in origin and for differentiating between unstable angina and myocardial infarction as a cause of patient chest pain is described. The diagnostic test comprises simultaneously detecting at least three selected cardiac markers with the use of at least three different monoclonal or polyclonal antibody pairs, each member of which is complementary to a different marker, which is released by heart muscle at varying stages after the onset of chest pain and is indicative of the cause of the chest pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1998:48195 USPATFULL
TITLE: **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
INVENTOR(S): Jackowski, George, Inglewood, Canada
PATENT ASSIGNEE(S): Spectral Diagnostics Inc., Toronto, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5747274		19980505	
APPLICATION INFO.:	US 1996-697690		19960905	(8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-420298, filed on 11 Apr 1995, now patented, Pat. No. US 5604105 which is a

continuation-in-part of Ser. No. US 1993-26453, filed on 3 Mar 1993, now abandoned which is a continuation-in-part of Ser. No. US 1991-695381, filed on 3 May 1991, now patented, Pat. No. US 5290678, issued on 1 Mar 1994

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1990-2027434	19901012

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wolski, Susan
LEGAL REPRESENTATIVE: Klauber & Jackson
NUMBER OF CLAIMS: 25
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 2438
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 71 OF 84 USPATFULL
TI **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
AB A diagnostic test, and a device for conducting the test, for assessing whether patient chest pain is cardiac in origin and for differentiating between unstable angina and myocardial infarction as a cause of patient chest pain is described. The diagnostic test comprises simultaneously detecting at least three selected cardiac markers with the use of at least three different monoclonal or polyclonal antibody pairs, each member of which is complementary to a different marker, which is released by heart muscle at varying stages after the onset of chest pain and is indicative of the cause of the chest pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1998:45097 USPATFULL
TITLE: **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
INVENTOR(S): Jackowski, George, Inglewood, Canada
PATENT ASSIGNEE(S): Spectral Diagnostics Inc., Toronto, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5744358		19980428	
APPLICATION INFO.:	US 1996-707594		19960905	(8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1995-420298, filed on 11 Apr 1995, now patented, Pat. No. US 5604105 which is a continuation-in-part of Ser. No. US 1993-26453, filed on 3 Mar 1993, now abandoned which is a continuation-in-part of Ser. No. US 1991-695381, filed on 3 May 1991, now patented, Pat. No. US 5290678, issued on 1 Mar 1994

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1990-2027434	19901012

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wolski, Susan
LEGAL REPRESENTATIVE: Klauber & Jackson
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 10 Drawing Page(s)

LINE COUNT: 2396
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 72 OF 84 USPATFULL
TI High affinity HIV-1 gag nucleic acid ligands
AB Methods are described for the identification and preparation of high-affinity nucleic acid ligands to HIV-1 GAG, Included in the invention are specific RNA ligands to HIV-1 GAG identified by the SELEX **method**, Also included are RNA ligands that inhibit the function of HIV-1 GAG.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	1998:25078 USPATFULL		
TITLE:	High affinity HIV-1 gag nucleic acid ligands		
INVENTOR(S):	Lochrie, Michael A., Boulder, CO, United States Gold, Larry, Boulder, CO, United States		
PATENT ASSIGNEE(S):	NeXstar Pharmaceuticals, Inc., Boulder, CO, United States (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5726017		19980310
APPLICATION INFO.:	US 1995-447172		19950519 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1991-714131, filed on 10 Jun 1991, now patented, Pat. No. US 5475096 , said Ser. No. US 1992-931473, filed on 17 Aug 1992, now patented, Pat. No. US 5270163 , said Ser. No. US 1992-964624, filed on 21 Oct 1992, now patented, Pat. No. US 5496938 , said Ser. No. US 1993-117991, filed on 8 Sep 1993, now abandoned And Ser. No. US 1990-536428, filed on 11 Jun 1990, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Zitomer, Stephanie W.		
LEGAL REPRESENTATIVE:	Swanson & Bratschun LLC		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1124		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 73 OF 84 USPATFULL
TI **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
AB This invention relates to a diagnostic tests and devices for conducting such tests at the point of care or in a diagnostic laboratory for accurate, simple, and rapid assessment of chest pain. In particular, the invention relates to differential diagnosis of the origin of chest pain, e.g., whether the pain is cardiac in origin, and for differentiating between unstable angina ("UA"), myocardial infarction ("MI"), congestive heart failure ("CHF"), and other ischemic events affecting the heart, at early onset of patient chest pain. The invention further relates to diagnosis of the stage of the MI in a patient suffering from MI, and to prognosis of such a patient. The present invention allows for the rapid, accurate, and sensitive diagnosis of a cardiac ischemic event in a patient complaining of chest pain, and determination of whether the event is unstable angina or myocardial infarction, by detecting the presence or absence of increased levels of at least three, and preferably four, biochemical markers present in blood or a blood fraction (serum, plasma) from a patient. The biochemical markers are heart proteins released during the ischemia. Release of different proteins occurs at different times and with different levels of ischemia.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 1998:6930 USPATFULL
TITLE: **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
INVENTOR(S): Jackowski, George, Inglewood, Canada
PATENT ASSIGNEE(S): Spectral Diagnostics Inc., Toronto, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5710008		19980120	
APPLICATION INFO.:	US 1996-735178		19961022	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-420298, filed on 11 Apr 1995, now patented, Pat. No. US 5604105 which is a continuation-in-part of Ser. No. US 1993-26453, filed on 3 Mar 1993, now abandoned which is a continuation-in-part of Ser. No. US 1991-695381, filed on 3 May 1991, now patented, Pat. No. US 5290678, issued on 1 Mar 1994

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1990-2027434	19901012

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Wolski, Susan
LEGAL REPRESENTATIVE: Klauber & Jackson
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 23
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 2559
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 74 OF 84 USPATFULL
TI High affinity HIV Nucleocapsid nucleic acid ligands
AB Methods are described for the identification and preparation of high-affinity nucleic acid ligands to HIV-1 nucleocapsid. Included in the invention are specific RNA ligands to HIV-1 nucleocapsid identified by the SELEX **method**. Also included are RNA ligands that inhibit the function of HIV-1 nucleocapsid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 97:68325 USPATFULL
TITLE: High affinity HIV Nucleocapsid nucleic acid ligands
INVENTOR(S): Allen, Patrick Nikita, Boulder, CO, United States
Gold, Larry, Boulder, CO, United States
PATENT ASSIGNEE(S): NeXstar Pharmaceuticals, Inc., Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5654151		19970805	
APPLICATION INFO.:	US 1995-477830		19950607	(8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1991-714131, filed on 10 Jun 1991, now patented, Pat. No. US 5475096 Ser. No. Ser. No. US 1992-931473, filed on 17 Aug 1992, now patented, Pat. No. US 5270163 Ser. No. Ser. No. US 1992-964624, filed on 21 Oct 1992, now patented, Pat. No. US 5496938 Ser. No. Ser. No. US 1993-117991, filed on 8 Sep 1993, now abandoned Ser. No. Ser. No. US 1994-361795, filed on 21 Dec 1994 And Ser. No. US

1995-447172, filed on 19 May 1995 , said Ser. No. US -714131 which is a continuation-in-part of Ser. No. US 1990-536428, filed on 11 Jun 1990, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Zitomer, Stephanie W.
LEGAL REPRESENTATIVE: Swanson & Bratschun LLC
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
LINE COUNT: 1190
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 75 OF 84 USPATFULL
TI High affinity HIV nucleocapsid nucleic acid ligands
AB Methods are described for the identification and preparation of high-affinity nucleic acid ligands to HIV-1 nucleocapsid. Included in the invention are specific RNA ligands to HIV-1 nucleocapsid identified by the SELEX **method** and RNA ligands that inhibit the function of HIV-1 nucleocapsid.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 97:47519 USPATFULL
TITLE: High affinity HIV nucleocapsid nucleic acid ligands
INVENTOR(S): Allen, Patrick, Boulder, CO, United States
Gold, Larry, Boulder, CO, United States
PATENT ASSIGNEE(S): NeXstar Pharmaceuticals, Inc., Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5635615		19970603
APPLICATION INFO.:	US 1995-477530		19950607 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1991-714131, filed on 10 Jun 1991, now patented, Pat. No. US 5475096 Ser. No. Ser. No. US 1992-931473, filed on 17 Aug 1992, now patented, Pat. No. US 5270163 Ser. No. Ser. No. US 1992-964624, filed on 21 Oct 1992, now patented, Pat. No. US 5496938 Ser. No. Ser. No. US 1993-117991, filed on 8 Sep 1993, now abandoned Ser. No. Ser. No. US 1994-361795, filed on 21 Dec 1994 And Ser. No. US 1995-447172, filed on 19 May 1995 , said Ser. No. US -714131 which is a continuation-in-part of Ser. No. US 1990-536428, filed on 11 Jun 1990, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Zitomer, Stephanie W.
LEGAL REPRESENTATIVE: Swanson & Bratschun, LLC
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
LINE COUNT: 1191
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 76 OF 84 USPATFULL
TI Control of gene expression by ionizing radiation
AB This invention relates to genetic constructs which comprise an enhancer-promoter region which is responsive to radiation, and at least one structural gene whose expression is controlled by the enhancer-promoter. This invention also relates to methods of destroying, altering, or inactivating cells in target tissue by delivering the genetic constructs to the cells of the tissues and inducing expression of the structural gene or genes in the construct by exposing the tissues to ionizing radiation. This invention is useful for treating patients

with cancer, clotting disorders, myocardial infarction, and other diseases for which target tissues can be identified and for which gene expression of the construct within the target tissues can alleviate the disease or disorder.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 97:22761 USPATFULL
TITLE: Control of gene expression by ionizing radiation
INVENTOR(S): Weichselbaum, Ralph R., 2031 N. Sedgwick, Chicago, IL, United States 60616
Hallahan, Dennis E., 5343 N. Moody, Chicago, IL, United States 60630
Sukhatme, Vikas P., 1511 E. 56th St., Chicago, IL, United States 60637
Kufe, Donald W., 179 Grove St., Wellesley, MA, United States 02181

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5612318		19970318
APPLICATION INFO.:	US 1994-212308		19940314 (8)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1993-35897, filed on 16 Mar 1993, now abandoned which is a continuation of Ser. No. US 1990-633626, filed on 20 Dec 1990, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Campell, Bruce R.
LEGAL REPRESENTATIVE: Arnold, White & Durkee
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 21 Drawing Figure(s); 16 Drawing Page(s)
LINE COUNT: 1211
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 77 OF 84 USPATFULL
TI **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
AB A diagnostic test, and a device for conducting the test, for assessing whether patient chest pain is cardiac in origin and for differentiating between unstable angina and myocardial infarction as a cause of patient chest pain is described. The diagnostic test comprises simultaneously detecting at least three selected cardiac markers with the use of at least three different monoclonal or polyclonal antibody pairs, each member of which is complementary to a different marker, which is released by heart muscle at varying stages after the onset of chest pain and is indicative of the cause of the chest pain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 97:14582 USPATFULL
TITLE: **Method** and device for diagnosing and distinguishing chest pain in early onset thereof
INVENTOR(S): Jackowski, George, Inglewood, Canada
PATENT ASSIGNEE(S): Spectral Diagnostics Inc., Toronto, Canada (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5604105		19970218
APPLICATION INFO.:	US 1995-420298		19950411 (8)

DISCLAIMER DATE: 20110503
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-26453, filed on 3 Mar 1993, now abandoned which is a

continuation-in-part of Ser. No. US 1991-695381, filed on 3 May 1991, now patented, Pat. No. US 5290678, issued on 1 Mar 1994

	NUMBER	DATE
PRIORITY INFORMATION:	CA 1990-2027434	19901012

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Knode, Marian C.
ASSISTANT EXAMINER: Wolski, Susan C.
LEGAL REPRESENTATIVE: Klauber & Jackson
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 16 Drawing Figure(s); 10 Drawing Page(s)
LINE COUNT: 2462
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 78 OF 84 USPATFULL

TI Chimeric immunogenic gag-V3 virus-like particles of the human immunodeficiency virus (HIV)

AB An unprocessed human immunodeficiency virus 2 (HIV-2) gag precursor protein, containing a deficient protease, assembles into virus-like particles by budding through the cytoplasmic domain of baculovirus-infected cells. Chimeric constructs were generated by coupling the truncated HIV-2 gag gene to the neutralizing domain (V3) or the neutralizing and CD4 binding domains (V3+CD4B) of gp120 env gene sequences obtained from HIV-1 or HIV-2. Virus-like particles were formed by chimeric gene products when the env gene sequences were linked to the 3' terminus of the gag gene. The gag-env chimeric proteins displayed immunoreactivity towards anti-gp120 rabbit antisera.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
ACCESSION NUMBER: 96:111363 USPATFULL
TITLE: Chimeric immunogenic gag-V3 virus-like particles of the human immunodeficiency virus (HIV)
INVENTOR(S): Kang, Chil-Yong, London, Canada
Luo, Lizhong, London, Canada
PATENT ASSIGNEE(S): Korea Green Cross Corporation, Kyongki-Do, Korea, Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5580773		19961203	
APPLICATION INFO.:	US 1993-100118		19930730	(8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-992618, filed on 18 Dec 1992			

	NUMBER	DATE
PRIORITY INFORMATION:	KR 1992-10493	19920617

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Budens, Robert D.
ASSISTANT EXAMINER: Parkin, Jeffrey S.
LEGAL REPRESENTATIVE: Merchant, Gould, Smith, Edell, Welter, & Schmidt
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 32 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 848
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 79 OF 84 USPATFULL
TI Chimeric HIV-2 gag particles
AB The chimeric proteins, and a protential vaccine and diagnostic reagent comprising gag-env chimeric protein particles are disclosed. The preparation comprises linking gag of HIV-2 to env to form the chimeric gene, inserting the obtained chimeric gene into the DNA of a baculovirus, infecting insect cells or insect host with the resulting recombinant virus, culturing it and purifying the obtained chimeric protein. The gag chimeric protein of HIV according to the present invention retains both antigenic and immunogenic properties.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	95:75739 USPATFULL		
TITLE:	Chimeric HIV-2 gag particles		
INVENTOR(S):	Kang, Chil-Yong, London, Canada Luo, Lizhong, London, Canada		
PATENT ASSIGNEE(S):	Korea Green Cross Corporation, Korea, Republic of (non-U.S. corporation) a part interest		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5443828		19950822	
APPLICATION INFO.:	US 1992-992618		19921218	(7)

	NUMBER	DATE
PRIORITY INFORMATION:	KR 1992-10493	19920617

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Nucker, Christine M.
ASSISTANT EXAMINER:	Tuscan, M.
LEGAL REPRESENTATIVE:	Merchant, Gould, Smith, Edell, Welter & Schmidt
NUMBER OF CLAIMS:	4
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	19 Drawing Figure(s); 11 Drawing Page(s)
LINE COUNT:	621

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 80 OF 84 USPATFULL
TI Molecular clones of bovine immunodeficiency-like virus
AB Biologically active proviral molecular clones of bovine immunodeficiency-like virus and cell lines infected with the same have been prepared. Various utilities of the clones are described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER:	95:3945 USPATFULL		
TITLE:	Molecular clones of bovine immunodeficiency-like virus		
INVENTOR(S):	Gonda, Matthew A., Walkersville, MD, United States		
PATENT ASSIGNEE(S):	The United States of America as represented by the Secretary of the Department of Health and Human Services, Washington, DC, United States (U.S. government)		

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5380830		19950110	
APPLICATION INFO.:	US 1992-980324		19921124	(7)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1989-408815, filed on 18 Sep 1989, now abandoned			
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Stone, Jacqueline			

ASSISTANT EXAMINER: Railey, II, Johnny F.
LEGAL REPRESENTATIVE: Rucker, Susan S.
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 2
NUMBER OF DRAWINGS: 40 Drawing Figure(s); 28 Drawing Page(s)
LINE COUNT: 1180
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 81 OF 84 DGENE (C) 2002 THOMSON DERWENT
TI Use of a nucleic acid binding polypeptide capable of binding to telomeric, G-quadruplex, or G-quartet nucleic acid as an enzymatic activity inhibitor or cytotoxic agent, for preparing a composition for treating diseases -
AN ABK10334 DNA DGENE
AB The invention describes a nucleic acid binding polypeptide (I) capable of binding to one or more of telomeric, G-quadruplex, or G-quartet nucleic acid as an inhibitor of enzymatic activity, for the preparation of a pharmaceutical composition for the treatment of a disease, or as a cytotoxic agent. (I) is useful for: inhibiting an enzymatic activity; preventing replication of a retrovirus e.g. for treating human immunodeficiency virus (HIV) infection or acquired immunodeficiency syndrome (AIDS); treating hyperproliferative disease, such as cancer; assaying a telomerase activity by providing a nucleic acid substrate for telomerase; determining the length of a telomere; discriminating between duplex and quadruplex nucleic acid; detecting telomeric structures in a system; and identifying a molecule capable of binding to a telomeric, G-quadruplex, or G-quartet structure in a nucleic acid. (I) is useful for the preparation of a pharmaceutical composition for the treatment of a disease, as a cytotoxic agent, and for killing a cell, preferably by inducing apoptosis. The assay for detecting telomerase activity using (I) is convenient, rapid, easily automated with liquid handling robotics and avoids the need to use radioactivity. This sequence represents an oligonucleotide used in the **production** of a **zinc finger** phage display library, described in the **method** of the invention.
ACCESSION NUMBER: ABK10334 DNA DGENE
TITLE: Use of a nucleic acid binding polypeptide capable of binding to telomeric, G-quadruplex, or G-quartet nucleic acid as an enzymatic activity inhibitor or cytotoxic agent, for preparing a composition for treating diseases -
INVENTOR: Choo Y; Isalan M; Liu X; Patel S; Balasubramanian S
PATENT ASSIGNEE: (SANG-N)SANGAMO BIOSCIENCES INC.
(UYCA-N) UNIV CAMBRIDGE TECH SERVICES LTD.
PATENT INFO: WO 2002004488 A2 20020117 147p
APPLICATION INFO: WO 2001-GB3130 20010712
PRIORITY INFO: US 2000-614679 20000712
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-216951 [27]

L5 ANSWER 82 OF 84 DGENE (C) 2002 THOMSON DERWENT
TI Use of a nucleic acid binding polypeptide capable of binding to telomeric, G-quadruplex, or G-quartet nucleic acid as an enzymatic activity inhibitor or cytotoxic agent, for preparing a composition for treating diseases -
AN ABK10333 DNA DGENE
AB The invention describes a nucleic acid binding polypeptide (I) capable of binding to one or more of telomeric, G-quadruplex, or G-quartet nucleic acid as an inhibitor of enzymatic activity, for the preparation of a pharmaceutical composition for the treatment of a disease, or as a cytotoxic agent. (I) is useful for: inhibiting an enzymatic activity; preventing replication of a retrovirus e.g. for treating human

immunodeficiency virus (HIV) infection or acquired immunodeficiency syndrome (AIDS); treating hyperproliferative disease, such as cancer; assaying a telomerase activity by providing a nucleic acid substrate for telomerase; determining the length of a telomere; discriminating between duplex and quadruplex nucleic acid; detecting telomeric structures in a system; and identifying a molecule capable of binding to a telomeric, G-quadruplex, or G-quartet structure in a nucleic acid. (I) is useful for the preparation of a pharmaceutical composition for the treatment of a disease, as a cytotoxic agent, and for killing a cell, preferably by inducing apoptosis. The assay for detecting telomerase activity using (I) is convenient, rapid, easily automated with liquid handling robotics and avoids the need to use radioactivity. This sequence represents an oligonucleotide used in the **production** of a **zinc finger** phage display library, described in the **method** of the invention.

ACCESSION NUMBER: ABK10333 DNA DGENE
TITLE: Use of a nucleic acid binding polypeptide capable of binding to telomeric, G-quadruplex, or G-quartet nucleic acid as an enzymatic activity inhibitor or cytotoxic agent, for preparing a composition for treating diseases -
INVENTOR: Choo Y; Isalan M; Liu X; Patel S; Balasubramanian S
PATENT ASSIGNEE: (SANG-N) SANGAMO BIOSCIENCES INC.
(UYCA-N) UNIV CAMBRIDGE TECH SERVICES LTD.
PATENT INFO: WO 2002004488 A2 20020117 147p
APPLICATION INFO: WO 2001-GB3130 20010712
PRIORITY INFO: US 2000-614679 20000712
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-216951 [27]

L5 ANSWER 83 OF 84 DGENE (C) 2002 THOMSON DERWENT
TI Use of a nucleic acid binding polypeptide capable of binding to telomeric, G-quadruplex, or G-quartet nucleic acid as an enzymatic activity inhibitor or cytotoxic agent, for preparing a composition for treating diseases -
AN ABK10332 DNA DGENE
AB The invention describes a nucleic acid binding polypeptide (I) capable of binding to one or more of telomeric, G-quadruplex, or G-quartet nucleic acid as an inhibitor of enzymatic activity, for the preparation of a pharmaceutical composition for the treatment of a disease, or as a cytotoxic agent. (I) is useful for: inhibiting an enzymatic activity; preventing replication of a retrovirus e.g. for treating human immunodeficiency virus (HIV) infection or acquired immunodeficiency syndrome (AIDS); treating hyperproliferative disease, such as cancer; assaying a telomerase activity by providing a nucleic acid substrate for telomerase; determining the length of a telomere; discriminating between duplex and quadruplex nucleic acid; detecting telomeric structures in a system; and identifying a molecule capable of binding to a telomeric, G-quadruplex, or G-quartet structure in a nucleic acid. (I) is useful for the preparation of a pharmaceutical composition for the treatment of a disease, as a cytotoxic agent, and for killing a cell, preferably by inducing apoptosis. The assay for detecting telomerase activity using (I) is convenient, rapid, easily automated with liquid handling robotics and avoids the need to use radioactivity. This sequence represents an oligonucleotide used in the **production** of a **zinc finger** phage display library, described in the **method** of the invention.

ACCESSION NUMBER: ABK10332 DNA DGENE
TITLE: Use of a nucleic acid binding polypeptide capable of binding to telomeric, G-quadruplex, or G-quartet nucleic acid as an enzymatic activity inhibitor or cytotoxic agent, for preparing a composition for treating diseases -

INVENTOR: Choo Y; Isalan M; Liu X; Patel S; Balasubramanian S
PATENT ASSIGNEE: (SANG-N) SANGAMO BIOSCIENCES INC.
(UYCA-N) UNIV CAMBRIDGE TECH SERVICES LTD.
PATENT INFO: WO 2002004488 A2 20020117 147p
APPLICATION INFO: WO 2001-GB3130 20010712
PRIORITY INFO: US 2000-614679 20000712
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: 2002-216951 [27]

L5 ANSWER 84 OF 84 WPIDS (C) 2002 THOMSON DERWENT
TI New library of nucleic acid binding **zinc finger** polypeptide(s) - each polypeptide comprising more than one **zinc finger** which is partially randomised, useful for detecting a target nucleic acid sequence.
AN 1999-024577 [02] WPIDS
CR 1999-024578 [02]; 1999-045309 [04]
AB WO 9853057 A UPAB: 20020215
A **zinc finger** polypeptide library (I) in which each polypeptide comprises more than one **zinc finger** which has been at least partially randomised is new.

Also claimed are: (1) a set (II) of **zinc finger** polypeptide libraries which encode overlapping **zinc finger** polypeptides which may be assembled after selection to form a multifinger **zinc finger** polypeptide; and (2) a **method** of preparing a library of nucleic acid (NA) binding proteins of the Cys2-His2 **zinc finger** class capable of binding to a target NA sequence.

USE - The **method** of (2) is useful for specifically engineering **zinc finger** proteins which can bind to particular nucleic acid targets. The resulting proteins can be used for determining the presence of a target nucleic acid (claimed). The proteins of the invention can be used in the manufacture of chimeric restriction enzymes, in which a NA cleaving domain is fused to a NA binding domain comprising a **zinc finger**. Fusion proteins comprising a binding protein and an integrase, e.g. viral integrase, can be used to target NA sequences in vivo. In gene therapy applications, the **method** may be targeted to the delivery of functional genes into defective genes, or the delivery of nonsense NA in order to disrupt undesired NA. Genes may also be delivered to known, repetitive stretches of nucleic acid, e.g. centromeres, together with an activating sequence such as an LCR. NA binding proteins can be specifically used to knock-out cells having mutant proteins, e.g. mutant ras. They can also be used to modulate the action of transcription factors, e.g. the activity of HIV tat may be reduced by binding proteins specific for HIV TAR. The new binding proteins may also be coupled to toxic molecules, e.g. nucleases, which are capable of selectively destroying cells which comprise a mutation in their endogenous nucleic acid. The products can be used in the treatment of infections.

ADVANTAGE - The invention provides a code of amino acid position bias which permits the selection of the library against any target nucleic acid sequence, and the **production** of a specific **nucleic acid binding protein**. Synergistic interactions between adjacent zinc fingers are taken into account, allowing the selection of any desired binding site. The invention allows the definition of every residue in a **zinc finger** nucleic acid binding motif which will bind specifically to a given nucleic acid quadruplet. When a marker protein is co-expressed with the binding protein, the requirement for gel electrophoresis is obviated, and so opens the way for automated nucleic acid diagnosis.

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INVENTOR(S): CHOO, Y; ISALAN, M; KLUG, A
PATENT ASSIGNEE(S): (MEDI-N) MEDICAL RES COUNCIL; (GEND-N) GENDAQ LTD
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